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A SURVEY OF THE DUTIES
ASSIGNED TO ENLISTED
MARINES SERVING
WITH NROTC UNITS

BY
LAWRENCE FONTAINE SNODDY, JR.

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NORTHWESTERN UNIVERSITY

A SURVEY OF THE DUTIES ASSIGNED TO ENLISTED MARINES
SERVING WITH HMOHC UNITS

A THESIS

SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
for the degree
MASTER OF ARTS

DIVISION OF CORRELATED STUDIES

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INTRODUCTION

Background of the problem. If an employer is to solve the problem of putting the "right man in the right job", that employer needs at least two kinds of information. First, he must have information about the man who is being considered for the job and second, he must have information about the requirements of the job to be filled. While this may seem altogether too obvious, it was not until comparatively recent times that employers recognized the fact that both the man and the job must be given consideration if an efficient organization is to be attained.

Coincidental but significant is the fact that interest in the study of individual differences and interest in specifying job requirements in writing were both attaining prominence at about the same time, though from entirely different directions. In 1895 J. McKeen Cattell (7) began to publish important articles on reaction time and individual differences. At about the same time, 1890-1895, Frederick W. Taylor (36) began to develop his principles of scientific management. These first studies of individual differences in work activities, carried on by Taylor, and later, by Frank B. Gilbreth (13), and their associates, were directed primarily toward increasing production through a careful analysis of the movements involved in handling a given type of work.

The problems of man analysis and job analysis were brought into sharp focus by World War I. With the entrance of the United States into the War in 1917, the United States Army was faced with the tremendous problem of raising and training a large citizen army with an

insufficient supply of commissioned and non-commissioned officers in the Regular Army. With the assistance of the American Psychological Association, there was established the Committee on Classification of Personnel in the Army. This Committee was concerned primarily with the conservation of skilled men and their utilization in the Army where their skills were needed the most. To accomplish this aim, it was necessary for the Committee to make an analysis of just what each officer and enlisted man could do. It was equally necessary to analyze the many jobs in the Army in terms of the skill and training necessary to perform them efficiently. According to Lansburgh and Spreigel (18, p.33) greater emphasis on human relations in scientific management was a direct outgrowth of those war experiences. Scott et. al. (31, p.1x) are of the opinion that World War I provided an unprecedented stimulus to American employers to study the adaptation of these principles to the personnel problems of industry.

The military services of the National Military Establishment have learned by the experience of two world wars that it is of vital importance to place in every assignment men who are physically, emotionally, and mentally qualified to do what is required by the assignment. Each of the services has some type of personnel system which has as its function the discovery of the military abilities of men and women in that service and their aptitudes or trainability for military jobs. Hand and hand with classification of personnel must go the establishment of job requirements in order that men and jobs can be reasonably well matched. The degree of proficiency required in each job must be ascertained and training courses established when required to enable a sufficient number of personnel to meet job requirements. The de-

termination and recording of job requirements is one aspect of job analysis.

The United States Marine Corps has realized the importance of classifying its personnel and of determining job requirements. In 1949 the personnel classification system of the Marine Corps was completely revised and brought up to date. Prior to commencing any revision of the personnel system, it was necessary to study all Marine Corps jobs and establish a realistic job structure based on actual field requirements. Consequently, in the summer of 1947, the Personnel Research Division of Headquarters Marine Corps was directed to conduct an analysis of all Marine Corps jobs and revise the Military Occupational Specialties Manual (41) based on the data collected. The limited number of personnel available for such work prevented the analysis of all jobs performed by Marines. Further, some post-war jobs were comparatively new in the Marine Corps and had not been established long enough to provide an area for profitable study.

Among the relatively new jobs performed by Marines are those with units of the Naval Reserve Officer's Training Corps.¹ Marine Corps personnel assigned to NROTC units perform such duties as may be assigned them by the Professor of Naval Science at each unit. To date there has been no attempt to ascertain specifically what duties are assigned to enlisted Marines serving with NROTC units.²

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1. The Naval Reserve Officers Training Corps shall hereafter be referred to in this study as NROTC.
 2. Confirmed in an interview with Officer in Charge, Procedures Analysis Office, Headquarters Marine Corps, Washington, D. C., December 21, 1949.

Purpose of the study. The purpose of the present study is to survey the duties presently assigned to Marine Corps enlisted personnel serving with NROTC units. On the basis of the findings, recommendations will be made as to how personnel should be selected for such duty and what specialized training appears to be desirable if they are to perform those duties satisfactorily.

Brief history of the NROTC program. The NROTC was established under authority of Section 22 of the Act of March 4, 1907, as amended.³ The mission of the NROTC is:

"...to provide by a permanent system of training and instruction in essential subjects at civil educational institutions a source from which qualified officers may be obtained for the Navy and the Marine Corps, and the Naval Reserve and the Marine Corps Reserve.

The Naval Reserve Officers Training Corps will accomplish its mission as an agency for providing and maintaining naval officer strength by--

(a) Qualification of students for appointment as ensigns in the regular Navy and the Naval Reserve, or second lieutenants in the Marine Corps and the Marine Corps Reserve, thus assisting in meeting the needs for commissioned personnel.

(b) Increased dissemination of knowledge concerning the Navy and Marine Corps, their purposes, ideals, achievements, and handicaps, thereby gaining interest in the maintenance of adequate naval preparedness." (42, p.2)

The NROTC is composed of naval training units established at educational institutions throughout the United States. At the present time there are NROTC units at fifty two colleges and universities. A complete list of the units is included in Appendix A.

Each NROTC unit is under the command of a Professor of Naval Science, who is either a Captain, U. S. Navy, or a Colonel, U. S.

3. 34 U.S. Code, Sup. 821; Public Law 729, 79th Congress, as amended by Public Laws 71 and 381, 80th Congress.

Marine Corps. As head of the Department of Naval Science, he, and the officers of his staff, are members of the faculty of the college or university.

The number of officers and enlisted men of the Navy assigned to duty with NROTC units is determined by the Bureau of Naval Personnel, based upon the exigencies of the naval service and the personnel requirements of the units.

As determined by the Chief of Naval Personnel and the Commandant of the Marine Corps, the following Marine Corps personnel are assigned to the NROTC program:

(a) Marine Corps Officer Instructors - Major or below - one per unit.

(b) Staff Non-Commissioned Officers - one per unit.

(c) Executive Officers - Lieutenant Colonel - eight in program.

(d) Professors of Naval Science - Colonel - eight in program.

Officers and enlisted men ordered to report to the Professor of Naval Science at an NROTC unit perform such duties as may be assigned them by the Professor of Naval Science. (42, p.25).

Sixteen and two-thirds percent of the NROTC students may be commissioned in the Marine Corps or the Marine Corps Reserve on a voluntary basis. NROTC students who wish to be considered candidates for commission in the Marine Corps or Marine Corps Reserve are given the opportunity to submit a written application to the Professor of Naval Science, via the Marine Corps Officer Instructor, after the completion

of two years in the NROTC program. The Professors of Naval Science are authorized to enroll in the Marine Corps Naval Science courses up to sixteen and two thirds of the potential number of graduates of any class. During the last part of the junior year and the entire part of the senior year these students undergo instruction in Marine Corps courses in lieu of the Naval courses. A list of the Marine Corps courses in the NROTC curriculum is contained in Appendix B.

It should be pointed out here that initially all the NROTC students are under contract to the United States Navy. The Marine Corps is entitled to 16 2/3% of these men only if they voluntarily seek admission to the Corps. The Marine Corps therefore is in the position of having to win its officer candidates from among the naval officer candidates. It is therefore important to the Marine Corps that the Marine Officer Instructor and his enlisted assistant be men of high caliber in order that they will attract suitable NROTC students to Marine Corps service. They should be capable of attracting not only the average student but at least a share of the top students. Since the Marine Non-Commissioned Officer works even closer with the NROTC students than does the Marine Officer Instructor, the enlisted Marine becomes very important in the business of winning officer candidates for the Marine Corps.

Then too, at several of the universities there are Army ROTC units with personnel of the regular Army and Air Force. At these institutions the Marine Corps enlisted instructor is the only enlisted representative of the Marine Corps present. Considering the large number of contacts of these military men with the educational institutions and the general public, and the opportunities for fostering

good-will toward the military establishment, it seems to be a matter of good business and good public relations for the Marine Corps to have in the NROTC jobs those men who will further friendly relations for themselves and the Marine Corps.

Job analysis. Good business organization requires that there be an adequate division of labor into jobs or positions. It further requires a comprehensive statement and evaluation of each job and the assignment of the right person to it. Job analysis is a tool by which jobs can be evaluated and by which jobs can be matched with available man power.

In industry, job analysis was developed for the purpose of securing data which were to be turned over to the employment office for use in selecting workers to fill vacancies in the organization.

Whitrock (40, p. 164) gives a brief but adequate description of the development of job analysis as follows:

"The interest in job analysis was crystallized when Frederick W. Taylor published 'Shop Management' in 1911. The movement has gone through four well-defined stages. The first job analysis records were random notes which described individual jobs. These were followed by the composite, essay job specifications which represented an attempt to combine 'common elements'. In the third stage the narrative description was retained and a list of items to be checked was added. By means of this list it was possible to make a quick survey of working conditions and man requirements. This material proved a valuable supplement to the job description. The fourth step was taken during the World War."

After World War I when industry faced the problem of finding work for disabled and handicapped workers the job analysis and man analysis technique proved to be of great value. Many industrial institutions and far-sighted business executives profited immensely by the work of the Committee on Classification of Personnel in the Army and devoted

considerable effort to the analysis of both men and jobs.

The term job analysis has come to rather wide usage and is defined in many ways even by those recognized as authorities in the management field.

Ordway Tead (37) in 1919 gave his definition of job analysis as "a scientific study and statement of all the facts (regarding the job) that throw light on its content and especially on its relation to the worker". The American Institute of Bolt, Nut, and Rivet Manufacturers (1, p.2) has more recently stated that job analysis is the "process of determining the pertinent information relating to the nature of a specific job". Tiffin (39, p.26) says it is "a determination of the main characteristics (physical, mental, educational, and so forth) that a man must have to fill a particular job satisfactorily". Finally, specialists on job analysis in the United States Department of Labor have defined the procedure of job analysis as "the procedure of determining, by observation and study, and reporting pertinent information relating to the nature of a specific job" (24, p.7).

All of the foregoing definitions of job analysis are essentially the same. They certainly would agree that job analysis involves a detailed study of the specific elements of a job. With such a limited definition as that however, there might be differences of opinion as to which elements of a job should receive more study than others. The National Industrial Conference Board (24, p.7) points out that "it may vary in complexity and in type of analysis from a study of major features to a detailed study of each individual motion involved and of all surrounding conditions". Further, as Watkins (45, p.209) has shown, in addition to the specific elements of the job, it may involve

the relation of the particular job to others in the organization and the affect of its performance upon the health and general reactions of the worker.

It can be said then that the individual has a wide choice of definitions of job analysis and can select a definition which is in accord with his particular purpose. Tiffin (39, p.28) recognizes this and lists four major types of job analysis as follows:

- a) Job analysis for personnel specifications.
- b) Job analysis for training specifications.
- c) Job analysis for setting of rates.
- d) Job analysis for methods improvement.

In keeping with the purpose of this study, the type of job analysis to be used herein will be a combination of a type mentioned by the National Industrial Conference Board and the first two of the types listed by Tiffin. That is, the job analysis in this study will be directed at the major features of the jobs under consideration with the end view of determining personnel specifications and appraising present training for such jobs. It will be kept in mind that Sharple (32, p.13) has warned that in analyzing jobs to establish personnel specifications one must be careful to differentiate job analysis from man analysis.

Actually, the uses of job analysis are many and varied. As early as 1919 Meigs (20, p.46) said that the chief uses to which job analysis could be put were divided into two groups:

- a) for the improvement of working methods and processes.
- b) for employment purposes in selecting, transferring, and promoting employees, and in establishing wage schedules.

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In 1942 however, Zerga (47, p.251) reported that an extensive survey of job analysis literature for the period 1911-1941 revealed at least twenty common uses for job analysis information. The uses he listed ranged from training to setting rates to health and safety programs. Walters (43, p.59) says that an important use of job analysis is to improve present jobs through clarification of duties, elimination of overlapping duties, and to fix responsibility more definitely. Watkins (45, p.209) has written that job analysis "enables the employment department to see each worker in relation to a specific type of work and to assure proper adjustment between the man and the job". In summary, it appears that there is no phase of industrial activity which job analysis can not serve.

It should be pointed out that job analysis is not restricted to highly mechanical, routine jobs of big business. On the contrary, job analysis has been used with great value in many businesses of varied size and activity. Recent periodical literature discloses that job analysis is used with success in athletics, teaching, certain medical work, personnel activities of the Church, social work, banking, and many, many types of clerical jobs (4, 6, 12, 16, 17, 21, 29, 33). And as previously described herein, the Marine Corps has made extensive use of job analysis in its personnel management program and has relied on job analysis to provide necessary data for revision of its entire personnel structure.

According to the American Management Association, Committee on Job Analysis, (2, p.3) the effect of job analysis is "to increase the efficiency of the agencies which deal with the human relations problem in industry and commerce". Industry has recognized the benefits to be

gained from job analysis and the trend has been steadily upward as more and more businesses have appreciated what job analysis has to offer. Parks (27) in 1936 reported that significant increases were noted in the number of firms using job analysis. In 1947 a survey of 325 companies in 25 states by Scott et. al. (31, p.571) revealed that 66% of those companies were using job analysis of some type.

The first step in job analysis is to obtain a job description. Otis and Leukart (26, p.229) have said that the purpose of the job description is to identify, define and describe clearly the job to be rated and thus to give a fairly detailed picture of the duties and responsibilities of the job. Tiffin (39, p.29) writes that the job description is simply "a detailed statement of what must be done by the man on the job". Regardless of the definition adopted, it is apparent that job analysis must be preceded by written descriptions of the job under study.

Selection and training. A survey by Spriegel and Wallace (34, p.79) in 1947 lends support to the fact that industry has become increasingly aware of the benefits to be gained by proper selection and training of employees. They found that the application blank, which is a tool of management in the selection process, was being used by 99.5 percent of the companies which they surveyed. In 1930, only 89 percent of the companies were using the application blank. The survey also revealed that the number of companies using intelligence tests to improve selection and training methods had increased from 17 percent in 1930 to approximately 38 percent in 1947.

It is appropriate to note here that the first step in the process of maintaining a psychological examination program is the determination

of the abilities and capacities required for success in the position to be filled. On the relationship between the testing program and job analysis, Mosher and Kingsley (23, p.165) have stated that "the dependence of the test upon adequate job analysis is immediately apparent".

In any business where there are a lot of jobs, formal training is required to fill deficiencies in knowledge that is required for any given type of job. In businesses where there are only a few jobs training is usually less formal but still is a necessity. In any military service the very large number of different kinds of jobs requires many different training programs in order to assure sufficient numbers of trained personnel.

The first step in training is the establishment of desired results to be obtained by the training. Desired results cannot be known unless the requirements of the jobs to be filled by the trainees are known. One industrialist (2, p.3) said of training and its relation to job analysis:

"No one disputes the value of training. Therefore, how can there be any question regarding the value of job analysis, for how can one train another without having the exact knowledge that job analysis gives as a basis for the training."

Walters (43, p.59) sums up the relationship nicely when he notes that job analysis is the only way to provide a definite basis for training.

The evidence then is that selection and training techniques are important and profitable and are an essential part of any program of enlightened personnel management. Further, if the selection and training programs are to be effective they must be based on factual information about the jobs in the organization. The factual infor-

mation required can be provided only by adequate job analysis.

Personnel management in the Marine Corps. The United States Marine Corps personnel system embraces all of the functions which are normally associated with personnel management. The Officer in Charge of the Procedures Analysis Office, Department of Personnel, Headquarters, U. S. Marine Corps, (15, p.48) has recently defined personnel management as the "process of effectively planning, organizing, directing, and supervising all personnel matters so as to obtain the maximum efficient utilization of, and production from, the members of the Marine Corps". Under such a definition personnel management would include personnel procurement, classification, assignment, promotion, morale and welfare, training and separation.

Headquarters, U. S. Marine Corps, from which all major Marine Corps personnel policies emanate, has realized that personnel management is as important as any other command function such as operations, intelligence, or logistics. The Corps has realized too that not only do its personnel have to be classified but that its various jobs do too. An official of the Personnel Department, Headquarters, U. S. Marine Corps, is quoted as follows (14):

"First there is personnel classification. It is that aspect of classification which deals with the qualifications of individuals. It is the process of collecting, recording, and continuously evaluating information concerning the military qualifications of personnel, and identifying such qualifications in a standardized manner.

Second, there is job classification. It is that aspect of classification which deals with the duties and requirements of jobs. It is the process of collecting, analyzing, and recording all information for accurate identification of Marine Corps jobs and identifying such jobs in a standardized manner.

I think it is obvious that neither personnel nor job classification alone serves any useful purpose. It is only when the two are completely integrated that classification can be an effective tool in personnel management."

PROCEDURE

Primary data required. It was essential to this study that job descriptions be obtained from the Marine Corps enlisted personnel currently serving with MROTC units. Job descriptions were desired for three reasons. First, they would reveal the specific duties assigned to these Marines. Second, they would furnish a basis for personnel specifications for use in the selection process. Third, they would provide a basis for comparison with the specialized training given these men and thereby give an indication of the value of such training.

Method of obtaining primary data. The three most commonly used methods of obtaining information about a job for use in job descriptions for job analysis are:

- 1) observing those performing the work.
- 2) interviewing those performing the work.
- 3) having those who are performing the work write descriptions of their duties following some sort of questionnaire.

The fifty-two MROTC units are scattered all over the United States. The only choice practicable in this study was that of having the men on the jobs write descriptions of their duties following a specially constructed questionnaire (See Appendix C).

It is realized that the questionnaire method of obtaining job descriptions is the least desirable of the three methods. As pointed

out by Scott et. al. (30, p.118) the usefulness of the data obtained by the questionnaire is dependent entirely on "first, the willingness of the individual to furnish the data; second, upon his possession of the facts; and third, upon his ability to present them in the right way." These cannot be disregarded so steps were taken to overcome them to some extent at least.

This study is being made of military personnel and has the standing of official business. This gives the advantage of having the men available under military orders to furnish such information as may be necessary. It is realized that the men could not be forced by any method to write a good job description but it is believed that there will be sufficient cooperation from the personnel concerned.

Care was taken to limit the questionnaire so the individual Marine would have in his possession all the facts necessary to permit adequate answers. Some assistance in this respect was obtained by observing the duty performance of the enlisted Marine on the Staff of the Professor of Naval Science at Northwestern University and discussing the job with the Marine Officer Instructor of that Unit.

As to the ability of the Marines to describe their jobs in the right way, not a great deal could be done but to hope for the best. Along this line however, it was requested of the Professor of Naval Science that both he and the Marine Officer Instructor review the completed job description and add any comments which appeared to be necessary for clarification. It was hoped too that having the job description reviewed by the Marine Officer Instructor would result in a more complete job description in those instances where the enlisted Marine was not too thorough in his answers.

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The questionnaire. An attempt was made to have the questionnaire be as short as possible and yet cover the probable extent of the job. It was realized that completion of the questionnaire and related forms would be an extra task for the personnel involved and it was considered that it would be better received if it did not appear to be overwhelming at first look. Then, too, it was not desired to gather a mass of detail which would be impractical to utilize.

In addition to the questionnaire about his duties, each Marine was to complete a personal history questionnaire concerning his education, both civilian and military, length of service, age, and other factors which were thought to be pertinent to his record. This information is on record officially in the Service Record of each of the Marines but it was considered more expedient to request this information of each Marine than to request it from Headquarters, U. S. Marine Corps, where a major clerical job would have been required.

To ascertain how well each man performed his presently assigned duties and what kind of impression he makes on those with whom he works, a rating form was devised and the Professor of Naval Science was requested to fill out the form after the job description had been completed by the Marine. The rating form purposely was limited to those traits considered as probably most important to this type of duty. In support of this technique of a short rating form, Thorndike (38), Stevens and Wonderlic (39), and others have found by statistical study that it is generally as satisfactory to rate workers on only a few traits as it is on a large number of traits. Ewart et. al. (11) found that in some cases "worker competency" could be rated on one, or possibly two "traits", as well as on the basis of twelve.

The first of these is the fact that the
 only way to measure the amount of
 work done by a system is to measure the
 amount of energy that is transferred to or
 from the system. This is because the
 amount of work done by a system is equal to
 the change in its energy. This is the
 first law of thermodynamics. The second
 law of thermodynamics states that the
 amount of work done by a system is less
 than the amount of energy that is transferred
 to or from the system. This is because
 some of the energy is lost to the surroundings.
 The third law of thermodynamics states
 that the amount of work done by a system
 is zero when the temperature is absolute
 zero. This is because the system is in a
 state of minimum energy. The fourth
 law of thermodynamics states that the
 amount of work done by a system is
 proportional to the change in its entropy.
 This is because the amount of work done
 by a system is equal to the change in its
 internal energy minus the change in its
 entropy. The fifth law of thermodynamics
 states that the amount of work done by a
 system is equal to the change in its
 free energy. This is because the amount
 of work done by a system is equal to the
 change in its internal energy minus the
 change in its entropy. The sixth law of
 thermodynamics states that the amount
 of work done by a system is equal to the
 change in its Gibbs free energy. This is
 because the amount of work done by a
 system is equal to the change in its
 internal energy minus the change in its
 entropy. The seventh law of thermodynamics
 states that the amount of work done by a
 system is equal to the change in its
 Helmholtz free energy. This is because
 the amount of work done by a system is
 equal to the change in its internal energy
 minus the change in its entropy. The eighth
 law of thermodynamics states that the
 amount of work done by a system is equal
 to the change in its grand potential. This
 is because the amount of work done by a
 system is equal to the change in its
 internal energy minus the change in its
 entropy. The ninth law of thermodynamics
 states that the amount of work done by a
 system is equal to the change in its
 grand potential. This is because the
 amount of work done by a system is equal
 to the change in its internal energy minus
 the change in its entropy. The tenth law
 of thermodynamics states that the amount
 of work done by a system is equal to the
 change in its grand potential. This is
 because the amount of work done by a
 system is equal to the change in its
 internal energy minus the change in its
 entropy.

Several steps were taken too to minimize the "halo effect" on the rating form. Specifically, under the first, third, and fifth traits, the ratings were listed with the unfavorable ratings first and under the second, fourth, and sixth traits, the favorable ratings were listed first. This was done to require the rater to read each rating under each trait before marking. Further, the rating on over-all job performance was placed last on the rating sheet in order that the marking on that trait would not unduly influence markings on the other five traits.

Copies of the letter to the Professors of Naval Science, the job description questionnaire, the personal history questionnaire, and the rating form are included in the Appendix.

Other data. It was considered important that there be an examination of the test scores on the Army General Classification Test for each of the Marines now serving in the NROTC program. It was assumed that there was some relationship between success in these NROTC jobs and test scores above a certain grade. Data on test scores were not available at each NROTC unit so the information was requested from Headquarters, U. S. Marine Corps.

Information was required as to how Marines now in the NROTC program were selected for those jobs and what standards they were required to meet prior to their selection for such duty. Such information was necessary if present selection methods and standards were to be evaluated in light of the findings with regards to the actual duties performed by these Marines. These data were requested of the Personnel Department, Headquarters, U. S. Marine Corps. Data in addition to that furnished in writing by that Department were obtained

by personal interviews with those officers at Headquarters who are concerned with the selection and assignment of enlisted Marines to the MROTC program.

It was also important for this study that data be obtained on the specialized training which was given to these enlisted Marines in anticipation of their assignments to the MROTC program. These data were requested directly from the United States Navy schools at the Naval Base, Norfolk, Virginia, and the U. S. Naval Training Station, San Diego, California.

RESULTS

Data received. Data furnished by fifty-one of the enlisted Marines serving with MROTC units and information furnished by Headquarters, U. S. Marine Corps, and the Instructors Training Schools have been compiled and are presented in the following Tables.

TABLE I

**USUAL DUTIES OF FIFTY ONE RELISTED
MARINES SERVING WITH HROTC UNITS**

Duty	No. reporting such duty
Instructs in:	
a. Infantry Weapons	29
b. Laboratory sessions for all Marine Corps courses (See Appendix B)	20
c. Close Order Drill and Ceremonies	18
d. Map Reading and Terrain Appreciation	7
e. Rifle Marksmanship	6
f. Marine Corps Administration	2
Assists the Marine Officer Instructor in all Marine Corps courses	29
Coaches Unit rifle and pistol teams	25
Performs clerical work for Marine Corps admin- istrative matters	25
Assists Drill Instructor	18
Coaches Unit rifle team	18
Provides security and maintenance for Unit small arms in Armory	14
Prepares training aids for the Marine Officer Instructor	11
Drives and maintains Unit vehicle	10
Operates and maintains Unit rifle range	7
Conducts familiarization firing for all HROTC students	6
Assists Coach of rifle and pistol teams	4
Stores and issues Unit books and publications	4
Makes up drill schedules	3
Coaches school rifle team	2
Issues and receives Unit library books	2
Maintains Unit training aids library	2
Trains Unit Color Guard	2
Assists Unit Band Officer	1
Acts as telephone talker for Navy gun drills	1
Maintains Unit Bulletin Board	1
Manages circulation of Unit newspaper	1
Performs daily police details	1
Serves as Unit Mail Orderly	1
Serves as Unit Recreation NCO	1
Serves as Unit Transportation NCO	1
Stores and issues clothing for HROTC students	1
Supervises Unit Hobby Shop	1
Unlocks and secures HROTC building daily	1

TABLE II

OTHER DUTIES OF FIFTY ONE SELECTED
MARINES SERVING WITH NROTC UNITS

Duty	No. reporting such duty
Drives Unit vehicle when directed	19
Performs clerical work for Marine Corps administrative matters	9
Stands Unit Petty Officer watch	7
Instructs university rifle club	3
Maintains Unit vehicle	3
Operates film projector for all Unit classes	3
Performs general police work	3
Serves as Unit Mail Orderly	3
Serves as Unit Messenger	3
Shows movies to civilian organizations and reserve units	3
Maintains cleanliness of one or more assigned cleaning stations	2
Maintains Coca-Cola machine	2
Prepares classrooms for all Unit classes	2
Prepares training aids	2
Assists Chief Gunners Mate in small arms instruction	1
Assists Coach of high school rifle team	1
Assists in issuing clothing to NROTC students	1
Assists in issuing uniforms, textbooks, and equipment to NROTC students	1
Assists Instructor in Naval Law	1
Assists in maintenance of Unit weapons	1
Assists in training Marine Corps Reserve unit	1
Instructs in Close Order Drill for local Naval Reserve unit	1
Instructs in rifle marksmanship for local Naval Reserve unit	1
Issues authorizations for NROTC students to draw books	1
Maintains all infantry weapons of the Unit	1
Operates Unit mimeograph machine	1
Performs administrative tasks for Unit in absence of Chief Yeoman	1
Publicizes NROTC program in local high schools	1
Serves as orderly for Professor of Naval Science	1
Serves as telephone talker for Navy gun drills	1
Stands library watch	1

TABLE III

MAJOR RESPONSIBILITIES REPORTED BY FIFTY ONE
ENLISTED MARINES SERVING WITH HEROIC UNITS

Responsibility	No. reporting such responsibility
Coaching HEROIC Rifle Team	16
Instructing in Laboratory sessions	12
Instructing in small arms	12
Coaching Unit rifle and pistol teams	11
Instructing in close order drill	10
Instructing HEROIC students in rifle and pistol marksmanship	7
Operating and maintaining rifle range	7
Assisting Drill Instructor	6
Maintaining Unit small arms	6
Marine Corps administration	5
Assisting the Marine Officer Instructor	3
Maintaining and issuing text books	2
Safeguarding Unit small arms	2
Assisting Instructor in Naval Science Course 401(M) (Military History and Policy)	1
Being prepared to perform any duty assigned	1
Cooperating with members of the other branches of the Armed Forces and civilians without sacrificing the standards and ideas which the Naval Service exemplifies	1
Custody of Unit training aids	1
Exhibiting exemplary conduct becoming to a professional Marine in order to sustain and enhance the public opinion of the Marine Corps and the HEROIC Unit in its relationship with the public	1
Instilling in the Midshipman pride in the Naval service and respect for Naval personnel by exemplary conduct	1
Maintaining Unit Bulletin Board	1
Police work	1
Providing transportation for HEROIC Staff	1
Representing the Marine Corps	1
Supervising the Hobby Shop	1
Supervising Midshipman participation in university extra-curricular activities of a military nature and their participation in civic affairs	1
Upholding and promoting favorable opinion of both Armed Forces and civilians concerning the excellence of the Naval Service	1

TABLE IV

INFORMATION OR PROCEDURES "MOST IMPORTANT AND NECESSARY
TO KNOW" REPORTED BY FIFTY ONE ENLISTED
MARINES SERVING WITH INROTC UNITS

Information or procedure	Reported by
Infantry weapons	29
Methods of marksmanship instruction	26
Close order drill, including ceremonies	21
Marine Corps administration	19
Techniques of instruction	12
Knowledge necessary to perform the duties of MOS 0319	8
Use and application of training aids	8
Knowledge of people at the college level	6
Range procedures	5
Map reading	2
Military courtesy	2
Public speaking techniques	2
Aims of the INROTC program and the methods to develop competent officers	1
Functions of the Marine Corps	1
General knowledge of the service	1
Group psychology	1
How to accomplish an objective by persuasion rather than by direction	1
How to cooperate	1
Knowledge of history with emphasis on the military and political aspects	1
Marine Corps history	1
Operation of film projectors	1
Specific knowledge of the history and development of the Art of Land Warfare	1
Terrain appreciation	1

TABLE V

MATERIALS AND EQUIPMENT FOR WHICH FIFTY ONE ENLISTED
MARINES SERVING WITH IROIC UNITS ARE RESPONSIBLE

Material or equipment	Reported by
Unit infantry weapons and ammunition	42
Unit rifle range	16
Marine Corps publications	10
Unit vehicle or vehicles	8
Training aids for Marine Corps courses	7
All Marine Corps property	5
Text books for Marine Corps courses	5
Unit library and books therein	5
All Unit training aids	2
All Naval ordnance material	1
Athletic gear	1
Clothing stocks for IROIC students	1
Motion picture projector	1
Training aids library	1
Unit Bulletin Board	1
Unit loud speaker equipment	1
Unit optical equipment	1

TABLE VI

SOURCES OF ORDERS REPORTED BY FIFTY ONE REELIRED
MARINES SERVING WITH BROTC UNITS

Source	Reported by
Marine Officer Instructor only	21
Professor of Naval Science, Executive Officer, and Marine Officer Instructor only	15
Duty Officer--as regards driving assignments	13
All Unit officers--as regards training aids	5
All Unit officers--as regards administrative work	2
Unit First Lieutenant--as regards police details	2

TABLE VII

REFERENCE MATERIAL REPORTED AS MOST USEFUL BY FIFTY
ONE ENLISTED MARINES SERVING WITH MROTC UNITS*

Material or publication	Reported by
Army Field Manuals	42
Marine Corps Schools publications	16
Naval Ordnance publications	11
Navy Regulations	11
Army Technical Manuals	10
MROTC text books	9
Marine Corps Manual	7
Marine Corps Gazette	5
MROTC Instructors Guide	5
Guidebook for Marines	4
National Rifle Association Small Bore Rifle Rules	4
National Rifle Association Pistol Rules	3
National Rifle Association Instructors Manual	3
Handbook on Small Bore Rifle Shooting	2
Landing Force Manual	2
Marine Corps Letters of Instruction	2
The Leatherneck	2
Bureau of Personnel Manual for Admini- strative Duties	1
Data from Instructors Orientation Course	1
Infantry Journal	1
Naval Courts and Boards	1

*See Appendix D for brief descriptions of the
various publications.

TABLE VIII

ACTIVITIES OUTSIDE OF THE HEROIC PROGRAM IN WHICH FIFTY
ONE ELISTED MARINE INSTRUCTORS PARTICIPATE

Activity	No. reporting such activity
No outside activities	33
Coaching varsity rifle team	7
Coaching intramural softball team	3
Instructing drill for school band	3
Bowling in faculty athletic league	2
Coaching intramural basketball team	2
Coaching varsity rifle and pistol teams	2
Coaching freshman rifle team	1
Coaching local high school rifle team	1
Coaching intramural rifle teams	1
Coaching Marine Corps League pistol team	1
Coaching Marine Corps Reserve rifle team	1
Instructing a sorority drill team	1
Instructing drill for local city band	1
Instructing flight and ground subjects for school flying club	1
Instructing Judo for school Physical Edu- cation Department	1
Instructing Naval Reserve firing squad	1

TABLE IX

DUTY CONSIDERED MOST USEFUL AS PREPARATION FOR HEROIC DUTY
BY FIFTY ONE ENLISTED MARINES SERVING WITH HEROIC UNITS*

Duty	No. reporting this duty
Fleet Marine Force	12
Recruit Depot Drill Instructor	11
First Sergeant's billet	6
Rifle range coach	5
Sea duty	5
Knowledge from all previous duty is utilized	4
Marine Corps Schools	4
Sergeant Major's billet	4
Sea School	3
Instructors Training Course	2
No other duty provides background for HEROIC duty	2
Small arms instructor	2
Assistant Professor of Military Science and Tec- tics, private military academy**	1
Assistant Regimental S-2	1
Motor transport	1
Parachute School	1
Personnel Administration School, Parris Island	1
Range Officer	1
S-3 Section, Marine Barracks, Camp Pendleton	1
Staff, Commander in Chief, U. S. Pacific Fleet	1
Troop Leaders School	1
Troop Training Unit	1

*See Appendix E for brief descriptions of the various duties.

**Not an official duty.

TABLE X

OUTLINE OF PRESENT SYSTEM OF SELECTING
ENLISTED MARINES FOR NROTC DUTY

A. Qualifications.

1. Essential:

- a) Available for change of duty. This has been a prime consideration.
- b) Fifth, Sixth, or Seventh Pay Grade.
- c) "Good" Army General Classification Test⁴ score.
 - 1) AGCT score of 100 is now considered the minimum acceptable.

2. Desirable:

- a) Married and of a stable character.
- b) Some decorations.
- c) Some inclination of instructor ability.
- d) Administrative ability along with an interest in marksmanship.
- e) Military Occupational Specialty 0319, Infantry Chief, or 0316, Infantry Unit Leader.⁵

B. Selection Procedure.

- 1. Records of enlisted Marines meeting the qualifications listed in A, above, are selected by the Enlisted Detail Branch.
- 2. Records are forwarded to Procurement Section, Officer Perfor-

4. The General Classification Test shall hereafter in this study be referred to by AGCT.

5. See Appendices F and G for descriptions of these Military Occupational Specialties.

(TABLE X CONT.)

nance Division, Department of Personnel, for final selection of Marines for MROTC program.

3. Records are returned to Enlisted Detail Branch which orders those selected to one of the Instructors Training Courses and thereafter to the respective Units.
 - a) Enlisted Marines are ordered direct to Units only if necessary to relieve Enlisted Marine Instructors because of sickness, expiration of enlistment, or some other good reason.

TABLE XI
RATINGS OF FIFTY ONE ENLISTED MARINE INSTRUCTORS
BY PROFESSORS OF NAVAL SCIENCE

	Rating	Number	Percent
1.	Military Neatness and Bearing:		
	Prepossessing, attracts attention.....	9	17.6
	Very neat, well groomed.....	32	62.8
	Clean, orderly.....	10	19.6
	Poor posture, needs neatness reminders.....	--	--
	Slovenly, not neat.....	--	--
	Total	51	100.0
2.	Group Adaptability:		
	Congenial, is sought after.....	24	47.1
	Generally accepted by the group.....	27	52.9
	Colorless, does not attract.....	--	--
	Repelling, avoided by others.....	--	--
	Total	51	100.0
3.	Work Attitude:		
	Eagerly enthusiastic about his work.....	18	35.3
	More than average interest in his work.....	24	47.1
	Shows interest ordinarily expected.....	6	11.8
	Sometimes appears indifferent.....	3	5.8
	Goes about his work half-heartedly.....	--	--
	Total	51	100.0
4.	Knowledge of His Work:		
	Has mastery of all phases of his work.....	19	37.3
	Unusually well informed about his work.....	17	33.3
	Has adequate knowledge of his work.....	14	27.5
	Has not gained adequate comprehension of his work.....	1	1.9
	Total	51	100.0
5.	Performance of Instructional Duties:		
	Has outstanding instructional ability.....	16	31.4
	Above average for an enlisted instructor.....	6	11.8
	Sufficient instructional ability for this duty....	26	51.0
	Below average for an enlisted instructor.....	3	5.8
	Not sufficient ability for instructing NROTC students.....	--	--
	Total	51	100.0
6.	Overall Job Performance:		
	Outstanding.....	14	27.5
	Excellent.....	29	56.9
	Average.....	5	9.8
	Fair.....	3	5.8
	Poor.....	--	--
	Total	51	100.0

TABLE XII

DISTRIBUTION OF RATINGS ON OVERALL JOB PERFORMANCE
OF FIFTY ONE ENLISTED MARINES
SERVING WITH NROTC UNITS

Rating	No. receiving this rating	Percentage
Outstanding	14	27.4
Excellent	29	56.9
Average	5	9.8
Fair	3	5.9
Poor	<u>None</u>	<u>None</u>
Total	51	100.0

THE STATE OF NEW YORK
 DEPARTMENT OF AGRICULTURE
 BUREAU OF PLANT INDUSTRY
 ALBANY, N. Y.

DATE	PLANT	LOCALITY
1911	Apple	Albany
1912	Apple	Albany
1913	Apple	Albany
1914	Apple	Albany
1915	Apple	Albany
1916	Apple	Albany
1917	Apple	Albany

TABLE XIII

**ARMY GENERAL CLASSIFICATION TEST SCORES OF ENLISTED
MARINES SERVING WITH NROTC UNITS***

Grade	Score	No. of Marines	Percentage
V	Under 70	None	--
IV	70-89	2	3.8
III	90-109	10	19.3
II	110-129	29	55.8
I	130-160	<u>11</u>	<u>21.1</u>
		Total 52	100.0

*See Appendix H for description of the Army General Classification Test.

TABLE XIV

AVERAGE AGCT SCORES OF FIFTY ONE PROTC ENLISTED
MARINE INSTRUCTORS ACCORDING TO RATINGS
OF OVERALL JOB PERFORMANCE

Overall Job Performance Rating	Mean AGCT Score	Standard Deviation	Median AGCT Score
Fair	109	2.4	109
Average	109	20.4	98
Excellent	120	9.6	120
Outstanding	123	11.9	120

TABLE 1

MEAN ANNUAL RAINFALL (INCHES) FOR THE YEARS 1901-1950
 AT THE STATION LOCATED AT THE INTERSECTION OF
 THE HIGHWAY AND THE RAILROAD

Year	Mean Annual Rainfall (inches)	Year	Mean Annual Rainfall (inches)
1901	5.2	1926	5.8
1902	4.7	1927	6.1
1903	5.1	1928	5.9
1904	5.3	1929	5.7

TABLE IV

DISTRIBUTION OF RATINGS ON OVERALL JOB PERFORMANCE BY FIFTY
ENLISTED MARINES SERVING WITH MROTC UNITS*

Occupational Field	Number in this field	Percentage in this field	Out- standing	Rating		
				Excel- lent	Aver- age	Total
01-Administration	23	46	6	14	2	23
03-Infantry	21	42	8	10	1	21
08-Field Artillery	2	4	-	2	-	2
21-Weapons Repair	1	2	-	1	-	1
23-Ammunition and Explosive Ordnance Disposal	2	4	-	2	-	2
58-Security and Guard	1	2	-	-	1	1
Total	50	100	14	29	4	50

* One Enlisted Marine Instructor did not report his MOS.

TABLE XVI

NUMBER OF SERVICE SCHOOLS OF OVER TWO WEEKS DURATION
 ATTENDED BY FIFTY ONE ENLISTED MARINE INSTRUCTORS
 SERVING WITH NROTC UNITS

No. of schools	No. of Marines attending	Percentage
0	9	17.7
1	17	33.3
2	13	25.5
3	8	15.9
4	1	1.9
5	1	1.9
6	2	3.8
Total	<u>51</u>	<u>100.0</u>

THE STATE
OF NEW YORK
IN SENATE
January 11, 1911.

REPORT

OF THE

COMMISSIONER

OF THE

LAND OFFICE

IN

1911.

TABLE XVII
AVERAGE CHARACTERISTICS OF FIFTY ONE ENLISTED
MARINES SERVING WITH NROTC UNITS

Mean AOCT Score	Standard Deviation	Mean Years of Service	Mean Age	Mean Years of Formal Education
119	13.2	12.2	33	12.1

TABLE 1

ACTUAL AND ESTIMATED PERCENTAGE OF THE POPULATION
 IN THE AGED 65+ CATEGORY, 1960-1980

Actual 1960 Estimated 1960	1960 Est.	1965 Est.	1970 Est.	1975 Est.
6.0	6.0	6.5	7.0	7.5

TABLE XVIII

AVERAGE CHARACTERISTICS OF ENLISTED MARINE INSTRUCTORS IN
THE HIGHEST AND LOWEST GROUPS OF TOTAL RATING SCORES

Group	Mean Rating Score	Mean AOCT Score	Standard Deviation	Mean Years of Education	Mean Years of Service	Mean No. of Outside Activities
Lowest 18%	17	112	14.4	12.2	13	.33
Highest 18%	27	121	13.7	11.9	13	1.0

TABLE XIX

INSTRUCTORS TRAINING SCHOOLS ACTIVITIES
 PRESCRIBED BY BUREAU OF NAVAL PERSONNEL

Subject	Hours	Percent
Instructional Procedures	36	30.0
Practice Teaching and Evaluation	29	24.2
Preparation	17	14.2
NROTC Orientation	14	11.6
Review and Tests	12	10.0
Projector Operation	8	6.7
Field Trips to Observe Instruction	4	3.3
Total	<u>120</u>	<u>100.0</u>

TABLE 1
 ECONOMIC AND SOCIAL DEVELOPMENT INDICATORS
 1980-1985: AVERAGE OF THREE TO FIVE YEARS

Country	Year	Indicator
1980	1980	Population Growth Rate
1981	1981	Population Growth Rate
1982	1982	Population Growth Rate
1983	1983	Population Growth Rate
1984	1984	Population Growth Rate
1985	1985	Population Growth Rate
1986	1986	Population Growth Rate
1987	1987	Population Growth Rate
1988	1988	Population Growth Rate
1989	1989	Population Growth Rate
1990	1990	Population Growth Rate

TABLE XX

**FOUR WEEK CURRICULUM PRESCRIBED FOR
INSTRUCTORS TRAINING SCHOOLS
BY BUREAU OF NAVAL PERSONNEL**

Introduction and overview of course
 Factors affecting learning
 How to study
 Historical development of the NROTC
 Planning instruction
 Training aids (Functions, types, availability)
 Training aids (Proper utilization)
 Training aids (Projector operation)
 Evolution of the NROTC curriculum
 Instructional analysis (Complete billet or rate)

 Instructional analysis (Breakdown of a single job)
 Training aids (Designing and making)
 Overview of the NROTC program
 Bureau of Naval Personnel publications (NROTC)
 Duties of instructors at an NROTC unit
 Methods of instruction
 The demonstration method
 The directed discussion method
 Planning instruction (preparation phase of lesson plan)
 Selection and types of NROTC candidates

 University organization and its relation to the NROTC
 Planning instruction (Introduction phase of lesson plan)
 Planning instruction (Presentation phase of lesson plan)
 Academic organization of the NROTC
 Evolution of teaching techniques
 Planning instruction (Application and summary phases of lesson plan)
 Student activities on the campus
 Advantages of NROTC assignment
 In-service training at an NROTC unit
 Planning instruction (Assignment phase of lesson plan)

 Instruction Sheets (Includes Information sheet)
 The Job Sheet
 The Assignment Sheet
 Testing techniques
 The achievement test - essay type
 The achievement test - objective tests
 The performance test
 The identification test
 Test scoring techniques (Includes interpretation of scores)
 Shop and laboratory management
 Scheduling techniques

THE UNIVERSITY OF CHICAGO
 DIVISION OF THE PHYSICAL SCIENCES
 DEPARTMENT OF CHEMISTRY

REPORT OF THE UNIVERSITY OF CHICAGO
 DIVISION OF THE PHYSICAL SCIENCES

DEPARTMENT OF CHEMISTRY
 DIVISION OF THE PHYSICAL SCIENCES

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REPORT OF THE UNIVERSITY OF CHICAGO
 DIVISION OF THE PHYSICAL SCIENCES
 DEPARTMENT OF CHEMISTRY

TABLE XXI

OPINIONS OF ENLISTED MARINE INSTRUCTORS AS REGARDS
ADEQUACY OF THE INSTRUCTORS TRAINING COURSES

Opinion	No. with this opinion	Percentage
Course was adequate	31	60.8
Course was inadequate	9	17.7
Did not attend the course	11	21.5
Total	<u>51</u>	<u>100.0</u>

TABLE III

RELATIONSHIP BETWEEN THE PERCENTAGE OF THE TOTAL
POPULATION IN THE LABOR FORCE AND THE PERCENTAGE OF THE
TOTAL POPULATION IN THE LABOR FORCE

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TABLE XIII

**RECOMMENDATIONS OF FIFTY ONE MROC UNIT ENLISTED MARINE
INSTRUCTORS CONCERNING THE INSTRUCTORS TRAINING COURSES***

Recommendation	Recommended by
No recommendation	35
Place more emphasis on training aids	8
Include course on infantry weapons	2
Include information on the duties of enlisted Marine Instructors	2
Include courses in map reading, terrain appreciation, and naval justice	1
Increase length of course	1
Place less emphasis on instructing methods	1
Reduce amount of detailed instruction and substitute more practical instruction	1
Reduce length of course to three weeks	1
Review close order drill	1

*See Appendix N for detail comments and recommendations of the
Enlisted Marine Instructors.

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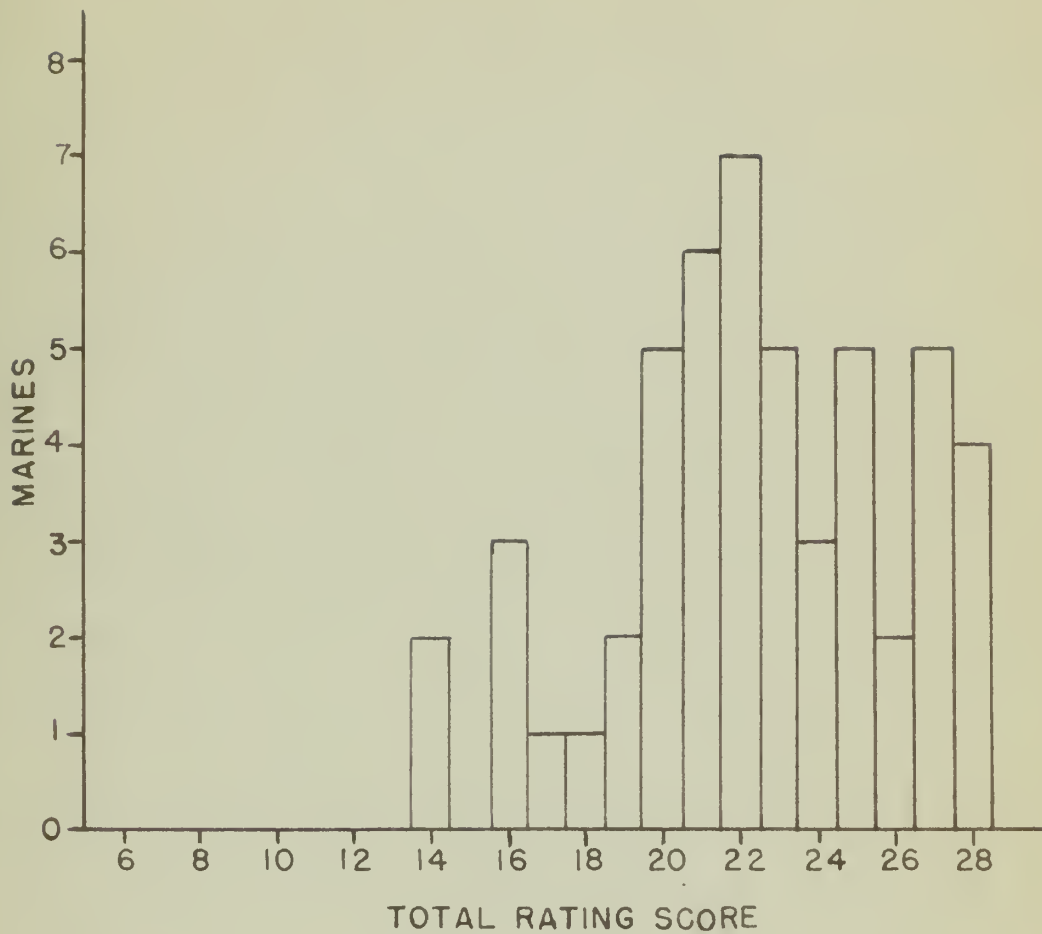


FIGURE 1

DISTRIBUTION OF TOTAL RATING SCORES OF
FIFTY ONE ENLISTED MARINES SERVING WITH
NROTC UNITS

DISCUSSION OF RESULTS

Response to questionnaires. In response to the 52 letters sent to the Professors of Naval Science, 51 replies were received. A further check with the Marine Officer Instructor of the one Unit that did not reply revealed that the Professor of Naval Science was retaining the letter and that it probably would not be answered. The Marine Officer Instructor was unable to suggest a reason as to why the Professor of Naval Science would not comply with the request. No further efforts were made to obtain a reply from that Unit officially.

While the quality and quantity of the data furnished by the enlisted Marines was generally good, there was some variability in the data furnished. A few of the job descriptions were stated in much greater detail than was necessary for this study while a few others were almost too brief for full understanding by anyone not familiar with local Unit conditions.

The comments of the Marine Officer Instructors were as varied in completeness. In some instances, the Marine Officer Instructors went to great length to add explanatory notes or to elaborate on the data prepared by the enlisted Marines. Unfortunately, this was not done in all cases where it would have been most useful. Several of the more poorly prepared job descriptions contained no indication of having been reviewed by the Marine Officer Instructors. In two other cases, the Marine Officer Instructors merely signed their names to indicate approval but made no clarifying remarks or other comments. Despite these occasional lapses, most reports were complete and fully usable.

Duties of Enlisted Marine Instructors. For purposes of this study the Marines were asked to list usual duties and other duties separately. A study of the completed job descriptions indicates that the primary difference between usual duties and other duties is simply a matter of emphasis in the various Units. The emphasis placed on a particular duty may be the result of varying policies of the Professor of Naval Science or the Marine Officer Instructor or may result from the absence of other qualified personnel from the Unit. For example, four Marines reported the usual duty of storing and issuing NROTC text books. At least one of those Units does not have any Navy Supply Corps personnel aboard and such duty would be assigned to some member of the staff in addition to his other duties. Data on Supply Corps personnel at other Units were not available. Other varied emphasis is shown by the fact that 25 of the Marines considered Marine Corps administrative matters a usual duty while nine others considered such matters as other duty. The amount of administrative work required of the NROTC Units is pretty much the same in each case but the correspondence of the Marine Officer Instructors apparently varies considerably.

An analysis of both the usual duties and the other duties reveals that the Enlisted Marine Instructors are assigned duties that may be reasonably expected and only one "other duty" assignment is considered to warrant adverse criticism. One Marine reported that he was required to serve as orderly for the Professor of Naval Science. As a general rule, Naval officers the rank of Captain and Marine officers the rank of Colonel do not rate the services of an orderly.

It must be borne in mind that every military unit has certain housekeeping duties which must be performed and these duties are usually divided among all regular members of the unit. It is therefore not disturbing to find that two Marines have the job of maintaining Coca-Cola machines, that one Marine has the usual duty of unlocking and securing the Unit building each day, or that another one serves regularly as the Unit Mail Orderly. There are limits to which Enlisted Marine Instructors should be assigned these housekeeping duties but in this survey no Marine was found to be overly burdened with such duties.

Major responsibilities. The major responsibilities reported most often were concerned with instructional duties. The instructional duties are primarily concerned with the subjects of infantry weapons, marksmanship, and close order drill. Most other major responsibilities were closely related to these subjects. The difference between weapons and marksmanship is that weapons instruction includes functioning, safety precautions, and capabilities of the various infantry weapons whereas marksmanship instruction includes the various individual firing positions, sighting and aiming, etc., and range regulations.

Seven of the Marines listed such major responsibilities as "exhibiting exemplary conduct...", "cooperating with members of the other branches of the Armed Forces...", and "Instilling in the Midshipman pride in the Naval service..." These responsibilities were listed in addition to other more specific duties and probably reflect emphasis on those facets of EROIC duty by the Marine Officer Instructor or the

Professor of Naval Science. In other instances, Professors of Naval Science commented on the importance of having well qualified, personable enlisted men on duty with NROTC Units and pointed out the responsibilities of these personnel of making favorable impressions on the students and school officials.

Important information and procedures. The completed job descriptions revealed that enlisted Marines serving with NROTC Units must know infantry weapons, marksmanship procedures, close order drill, and Marine Corps administration and must know the necessary techniques for instructing in those subjects.

Several Marines thought it important to know military history of one kind or another. It is not believed necessary for the Enlisted Marine Instructors to have extensive knowledge of military history. The following comment by one of the Marine Officer Instructors is applicable:

"The need for a broad historical background and knowledge of the development of the Art of War are not necessary. If this knowledge is held by the MCO Assistant, so much the better, and more responsibility can be placed upon him."⁵

Responsibilities for material and equipment. The greatest uniformity among all the reporting Units was that of having the enlisted Marine responsible for the Unit's infantry weapons and ammunition. Forty two Marines indicated that they were assigned such responsibility. The completed job descriptions did not indicate that any Marine is assigned responsibilities for material and equipment beyond that to be reasonably expected.

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Sources of orders. It was desired to know whether or not the enlisted Marines are being used as assistants to the Marine Officer Instructors, as staff instructors, or as jacks-of-all-trades at the discretion of all officers of the Units. Though the replies to this question did not specifically settle this aspect of the Marines' duties, it appears that the enlisted Marines are usually assigned their duties by the proper officers.

Extra-curricula activities. Thirty three Marines reported that they did not participate in any activities outside of the HEROIC program while the other eighteen reported participation in one or more unofficial activities. Several of the Marines who reported no outside activities blamed their poor housing arrangements for lack of time or transportation necessary to participate in other than official activities.

There were a few instances in which activities outside of the HEROIC program were reported as "other duties". It was intended that usual duties and other duties would be assigned, official duties and not a matter of choice for the Marines. An extra-curricula activity was intended to be an unofficial activity participated in voluntarily by those concerned. For example, one Marine reported the duty of assisting the Coach of a high school rifle team. It is believed that this should have been properly reported as an extra-curricula activity. It is possible of course that such a duty has been assigned to that Marine and it is therefore rightfully reported as a duty. In compiling Tables I, II, and VIII, the duties were listed the way they were reported since sufficient information was not available for any further interpretation. The questionnaire is now recognized as defec-

tive in this respect and it is regretted that the various categories of duties and activities were not more fully defined on the questionnaire.

Useful experience. Though duty with the Fleet Marine Force and duty as a Recruit Depot Drill Instructor were the most frequently reported as most useful preparation for MROTC duty, it appears that a number of other duty assignments provide experience that is valuable to Marines in MROTC billets. It is interesting that four Marines indicated that knowledge from all previous duty is utilized and that two others stated that no other duty provided background for MROTC duty. It is believed that the latter two Marines really mean that no other duty orients one for the way in which MROTC duties have to be performed. That is, in MROTC duty the enlisted Marine is faced with the problem of instructing a rather select group of college students and the military discipline and routine with which he has been indoctrinated must be altered somewhat in dealing with these young men.

The selection process. The selection process outlined in Table X has been in effect only since the Fall of 1949. The qualifications required of enlisted Marines for selection for MROTC duty prior to the Fall of 1949 could not be ascertained but there is reason to believe that the qualifications were somewhat lower than those now required. For example, under the present selection requirements, no Marines with AGCT scores of less than 100 are assigned to the MROTC program but seven Marines assigned to the program prior to the summer of 1949, and still serving in the program, have AGCT scores of less than 100.

The practice of having the final selection of enlisted Marines

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for the HEROIC program as a function of the Procurement Section, Officer Performance Division, Department of Personnel, has been in effect since early 1947. The Officer Performance Division has cognizance over all officer procurement programs and is therefore very much interested in the HEROIC program. In 1947 an officer of the Procurement Section was designated as Liaison Officer for Marine Corps Participation in the HEROIC Program. This officer visited a number of the HEROIC Units for the purpose of observing the duties performed by the Marine personnel and resolving any problems concerning those personnel. Since this officer was the only one in the Department of Personnel with any knowledge of the duties of Marine personnel in the HEROIC program, the informal procedure was adopted of having him make the final selection of the enlisted Marines for assignment to the various HEROIC Units. Despite the fact that that officer is no longer on duty with the Procurement Section and that there is no written record in the Procurement Section of the duties performed by the enlisted Marines, the files on the available, qualified enlisted Marines are still forwarded to that Section for the final selection of those to be ordered to the HEROIC program.

The participation of two agencies in the selection and assignment of enlisted personnel to the HEROIC program is considered to be unnecessary. It appears that the present selection system exists because of a lack of information on the part of the Enlisted Detail Branch as regards the duties of the Marines at the HEROIC Units. It is hoped that the data presented in this study will be of assistance to the Enlisted Detail Branch in understanding the nature and requirements

of enlisted billets in the NROTC program and thereby permit it to assume its proper responsibility in the selection and assignment of Marines thereto.

It is realized that factors such as normal tours of duty, re-training assignments, and others must be taken into account in solving the many personnel assignment problems of the Enlisted Detail Branch. However, as long as availability for reassignment is a prime consideration in the selection of Marines for NROTC duty there will be too many below average Marines assigned to such duty. Considering the values that can accrue to the Marine Corps if the billets are properly filled, it seems justifiable to make exceptions to certain assignment policies if necessary to permit the assignment of well qualified enlisted personnel to the NROTC program.

Though inquiry was made of Headquarters, U. S. Marine Corps, no data could be assembled as to the number of enlisted Marines who have been relieved of their NROTC assignments because of poor performance of duty. Indications are that there have been several Marines relieved of such assignments at the request of Professors of Naval Science. One Professor of Naval Science added a comment to the rating sheet as follows: "The previous Sergeant was transferred at my personal, informal request because he was as colorless and neutral as a clothing dummy. Personally competent but useless as an instructor".⁷

It was found that the minimum acceptable AGCT score was arbitrarily established by an officer in the Enlisted Detail Branch and was not based on a study of the relationship of AGCT scores to job

7. Source confidential.

performance or of the duties actually required of the Marines. Further, the way "inclination of instructor ability" and "administrative ability along with an interest in marksmanship" are determined is by a perusal of the Marines record to see if he has any experience along those lines.

Though the present selection procedure provides that the Marines be in the Fifth, Sixth, or Seventh Pay Grade, there are no Fifth Pay Grade personnel now serving with NROTC Units. In view of the fact that at least three of the Sixth and Seventh Pay Grade Marines are rated only Fair on overall job performance, it appears that profitable use might be made of qualified Fifth Pay Grade personnel.

Statistical analysis. For purposes of statistical analysis, each rating under each trait on the Rating Form shown in Appendix C was assigned a numerical value and a total rating score was computed for each Marine. Under this scale, total rating scores could range from six points to twenty eight points. As shown in Figure 1., page 42, the ratings were generally high. Only eight of the 51 Marines were rated as Average or Fair and none were rated as being Poor. This is not a particularly unusual distribution of ratings in the military service however. As Scott, Clothier, and Spreigel (31, p.202) have pointed out, there is a normal tendency to rate subordinates higher than the established standard and military ratings are affected by the fact that the ratings are made by men who have relatively few men under them against whom to make comparisons. That is particularly true of NROTC Units.

The correlation of AGCT scores and total rating scores was computed and found to be +.22. Such a low correlation could conceivably

occur by chance and is not regarded as indicating any significant relationship between AGCT scores and total rating scores. AGCT scores and scores on the trait of Overall Job Performance were correlated and a Pearsonian r of $-.22$ was found. Here again, the correlation was considered to be of little significance. It must be borne in mind that these Enlisted Marine Instructors are a rather homogeneous group since they were selected only after meeting certain qualifications. Marines with very low AGCT scores are not assigned to the NROTC program.

For further study and analysis, the Marines with the lowest 10% of the total rating scores and those with the highest 10% were grouped for comparison. It is realized that it is customary to make comparisons between the lowest 25% and the highest 25% but in this study comparable size groups could only be obtained by using 10% at either end of the scale.

Age, years of service, years of formal education, and number of service schools attended apparently have little or no relationship to success or failure in NROTC billets. The average enlisted Marine serving with an NROTC Unit at the present time is 33 years of age and has 12 years of Marine Corps service. The relationship between these factors and total rating scores was not found to be significant. The factors of age and length of service are somewhat controlled by the fact that the Marine must be in one of the top three Pay Grades for assignment to this duty and will therefore necessarily have more service and be older than might otherwise be true. As regards years of formal education, those with less than a completed high school course rated as highly as those with one or two years of college. One of the

Marines who received the lowest total rating score had completed three years of college and another Marine who had completed more than four years of college received a low rating because "he has shown lack of ability to express ideas clearly, forcefully, and concisely."⁵ On the other end of the scale, one of the Marines with a perfect total rating score is not a high school graduate. In between these extremes the cases vary widely.

The relationship between the number of service schools attended and rating scores was not found to be significant. Perhaps the most startling discovery here was that nine of the 51 Marines reported that they have not attended any service schools of over two weeks duration and did not even have the opportunity to attend one of the Instructors Training Courses. This is even more surprising when it is considered that these nine Marines have an average of over 10 years of service.

Specialized training. Despite the policy that enlisted Marines selected for INOTC duty will attend one of the Instructors Training Courses if practicable, 11 of the Marines now serving with INOTC Units have not attended one of those Courses. Of the 40 Marines who reported attending one of the Courses, nine of them, or over 22% thought the course inadequate. All of those who thought the course inadequate did not give reasons for their opinions. Recommendations concerning the training were generally directed to inclusion of more courses covering the subject areas in which the Marines are expected to instruct. The comment given most frequently was that more emphasis should be placed on training aids. It was interesting to note that

8. Source confidential.

two Marines complained that no one at the schools knew what duties the Marines would be expected to perform.

It is recognized that the Instructors Training Courses are designed to train enlisted personnel in instructional techniques and it is assumed that the men are already proficient in their individual specialties. On the other hand, it must be considered that a periodic, systematic review of ones knowledge of his specialty is highly desirable--particularly when that knowledge is to be imparted to others. In the case of enlisted Marines assigned to duty it would seem desirable to provide for at least one week of intensive review of the subjects of infantry weapons, marksmanship, close order drill, map reading, terrain appreciation, and the latest developments in Marine Corps administration.

Such a week of intensive training could be provided for in several ways. A way which would require the least amount of additional facilities and personnel would be to extend the Instructors Training Courses to five weeks in the case of the enlisted Marines. A Marine officer and an enlisted assistant from a nearby Marine Corps activity could be ordered to the staff of each of the Instructors Training Courses for about 10 days temporary duty to supervise this refresher course for the Enlisted Marine Instructors. After this one week course, the Marines would go on through the regular Instructors Training Course.

SUMMARY AND CONCLUSIONS

Summary. One of the tools used in the process of matching men and jobs is job analysis. Job analysis has grown most rapidly since World War I and is now commonly used in private and public businesses,

including the military services. The Marine Corps, though making wide and increasing use of job analysis techniques, has not yet studied the duties assigned to enlisted Marines serving with HROTC Units.

To survey the duties assigned to these enlisted Marines, questionnaires and a rating form were prepared and sent to each of the HROTC Units with a request that the enlisted Marine prepare a description of his duties, furnish certain personal information, and that the Professor of Naval Science rate the Marine on his performance of duty. In addition, other data, such as AGCT scores and information on the selection system and the specialized training program, were requested from Headquarters, U. S. Marine Corps, and the Navy schools concerned.

From the data collected, it appears that the enlisted Marines serving with HROTC Units are primarily concerned with instructional duties though they perform many different kinds of duties in addition thereto. The usual duties and other duties assigned to these Marines do not seem to be unreasonable, with one exception, nor are the Marines burdened with undue responsibilities. It is believed that the Marine who serves as orderly for the Professor of Naval Science has been given an improper assignment.

It is clear that Marines assigned to HROTC Units must have a thorough knowledge of infantry weapons, marksmanship, close order drill, map reading, terrain appreciation, and Marine Corps administration and must be able to instruct efficiently in these subject areas.

The job performance ratings seem to indicate that Marines in the Occupational Fields of Administration and Infantry are the best prepared for HROTC duty though it is believed that personnel of the

Fifth, Sixth, and Seventh Pay Grade personnel of other Occupational Fields could readily adapt themselves to the demands of these billets.

At the present time there is a dual responsibility for the selection of Marines for MROTC duty but neither party to the selection process has in writing the requirements for selection and neither party has any written record of the duties performed by enlisted Marines serving with MROTC Units. The qualifications for selection for this duty, in effect since 1949, appear to be stringent enough to reasonably assure the selection of Marines who will be rated above average in the performance of MROTC duties. The qualification of availability for change of duty is considered open to adverse criticism. The minimum acceptable ASCT score was arbitrarily established without the benefit of a thorough study of all factors involved. No grounds were established to permit a firm recommendation that Marines have any particular ASCT score for selection for MROTC duty. However, certain evidence suggests that the better job performances in MROTC Units are by those Marines with ASCT scores of 110 or over.

Data on the specialized training given these Marines before assignment to MROTC duty indicate that the training generally meets their needs though an intensive review of certain Marine Corps subjects is highly desirable. The completed questionnaires revealed that the Instructors Training Schools lack information as to what is expected of the Marines by the MROTC Units.

Conclusions. From the foregoing it is concluded that the following are desirable and are recommended:

- a. That the Bureau of Personnel direct each MROTC Unit

to state in writing the usual duties of the Enlisted Marine Instructor and that copies of such data be furnished to the Commandant of the Marine Corps and each of the Instructors Training Schools.

b. That upon receipt of such job requirements, the Commandant of the Marine Corps take such action as may be necessary to have the Enlisted Marine Instructors relieved of those duties that are not in keeping with their status as senior noncommissioned officers.

c. That the following qualifications be adopted for selection of enlisted Marines for ENSIC duty:

- 1) Minimum AGCT score of 110.
- 2) Fifth, Sixth, or Seventh Pay Grade.
- 3) Occupational Field 01 or 03. Other Occupational Fields acceptable if the Marine has experience in instructing or infantry weapons.
- 4) Experience in administrative positions or rifle range work.

Availability of personnel for routine change of duty, decorations, and marital status should not be important factors.

d. That whatever qualifications are adopted be put in writing and thereafter the selection and assignment of enlisted Marines be the sole responsibility of the Enlisted Detail Branch.

e. That enlisted Marines ordered to duty with ENSIC Units be first ordered to one of the Instructors Training Courses. In event a Marine is assigned directly to a Unit, he should be ordered to the next summer session of one of the Instructors Training Courses.

f. That the Instructors Training Courses be lengthened by at least one week for enlisted Marines in order for them to receive an

intensive review of infantry weapons, marksmanship, close order drill, map reading, terrain appreciation, and Marine Corps administration.

g. That one Marine officer and one enlisted assistant be ordered from nearby Marine Corps activities for temporary duty on the Staffs of the Instructors Training Schools for the purpose of supervising the one week refresher course for the Enlisted Marine Instructors.

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The first of these is the fact that the
population of the United States has
increased from 3,900,000 in 1790 to
63,000,000 in 1900. This increase
has been due to a number of causes,
but the most important is the
immigration of foreign-born
people into the country.

The second cause is the fact that
the birth rate has been high for
many years. This is due to a
number of causes, but the most
important is the fact that the
people of the United States have
been very fertile.

The third cause is the fact that
the death rate has been low for
many years. This is due to a
number of causes, but the most
important is the fact that the
people of the United States have
been very healthy.

The fourth cause is the fact that
the life expectancy has been high
for many years. This is due to a
number of causes, but the most
important is the fact that the
people of the United States have
been very long-lived.

The fifth cause is the fact that
the population has been very
mobile. This is due to a number
of causes, but the most important
is the fact that the people of the
United States have been very
willing to move from one place
to another.

APPENDEES

APPENDIX A

UNIVERSITIES AND COLLEGES WHERE HONOR
UNITES ARE ESTABLISHED

Alabama Polytechnic Institute Auburn, Alabama	Iowa State College of Agri. & Mech. Arts Ames, Iowa
Brown University Providence, Rhode Island	Kansas, University of Lawrence, Kansas
California, University of Berkeley, California	Louisville, University of Louisville, Kentucky
California at Los Angeles, University of Los Angeles, California	Marquette University Milwaukee, Wisconsin
Colorado, University of Boulder, Colorado	Miami University Oxford, Ohio
Columbia University New York City, New York	Michigan, University of Ann Arbor, Michigan
Cornell University Ithaca, New York	Minnesota, University of Minneapolis, Minnesota
Dartmouth College Hanover, New Hampshire	Mississippi, University of University, Mississippi
Duke University Durham, North Carolina	Missouri, University of Columbia, Missouri
Georgia Institute of Technology Atlanta, Georgia	Nebraska, University of Lincoln, Nebraska
Harvard University Cambridge, Massachusetts	New Mexico, University of Albuquerque, New Mexico
Holy Cross, College of the Worcester, Massachusetts	North Carolina, University of Chapel Hill, North Carolina
Idaho, University of Moscow, Idaho	Northwestern University Evanston, Illinois
Illinois Institute of Technology Chicago, Illinois	Notre Dame, University of Notre Dame, Indiana
Illinois, University of Urbana, Illinois	Ohio State University Columbus, Ohio

APPENDIX A (CONT.)

Oklahoma, University of Norman, Oklahoma	Stanford University Stanford, California
Oregon State College Corvallis, Oregon	Texas, University of Austin, Texas
Pennsylvania State College State College, Pennsylvania	Tufts College Medford, Massachusetts
Pennsylvania, University of Philadelphia, Pennsylvania	Tulane University of Louisiana New Orleans, Louisiana
Princeton University Princeton, New Jersey	Utah, University of Salt Lake City, Utah
Purdue University Lafayette, Indiana	Vanderbilt University Nashville, Tennessee
Rensselaer Polytechnic Institute Troy, New York	Villanova College Villanova, Pennsylvania
Rice Institute Houston, Texas	Virginia, University of Charlottesville, Virginia
Rochester, University of Rochester, New York	Washington, University of Seattle, Washington
South Carolina, University of Columbia, South Carolina	Wisconsin, University of Madison, Wisconsin
Southern California, University of Los Angeles, California	Yale University New Haven, Connecticut

APPENDIX B

MARINE CORPS COURSES IN THE NROTC CURRICULUM

Junior Year

Course	Course No.	No. of hours
Military History and Policy	NS 301 (M)	15
History of the Art of War	NS 302 (M)	45
Laboratory Sessions:	NS 302 (M)	18
1. Map reading		(6)
2. Terrain appreciation		(4)
3. Infantry weapons		(6)
4. Terrain problem		(2)
Total hours Junior Year		<u>78</u>

Senior Year

Military History and Policy	NS 401 (M)	30
Amphibious Warfare	NS 412 (M)	30
Amphibious Warfare	NS 413 (M)	30
Laboratory Sessions:	NS 401 (M)	18
1. Weapons		(12)
2. Naval Justice		(4)
3. Terrain problem		(2)
Total hours Senior Year		<u>108</u>
Total hours Marine Corps Courses		<u>186</u>

TABLE 1

Summary of the results of the analysis of variance

TABLE 2

Source of variation	df	Mean square	F value
Between groups	3	10.00	1.00
Within groups	12	10.00	1.00
Total	15		
Error	12	10.00	1.00
Residual	3	10.00	1.00
Unexplained	3	10.00	1.00
Total	15		
Error	12	10.00	1.00

TABLE 3

Source of variation	df	Mean square	F value
Between groups	3	10.00	1.00
Within groups	12	10.00	1.00
Total	15		
Error	12	10.00	1.00
Residual	3	10.00	1.00
Unexplained	3	10.00	1.00
Total	15		
Error	12	10.00	1.00
Residual	3	10.00	1.00
Unexplained	3	10.00	1.00

APPENDIX C

25 November 1949

From: Captain L. F. SHODDY, Jr., U. S. Marine Corps.
To : Professor of Naval Science

Subj: Job descriptions of Marine Corps enlisted personnel
on duty with NROTC Units.

Encl: (1) Preparation of Job Description.
(2) Personal History Questionnaire.
(3) Rating Form.

1. This officer is currently enrolled in the Personnel Administration and Training Course at Northwestern University. To fulfill a thesis requirement, and as a research project for the Marine Corps in conjunction with the course, an analysis is being made of the duties usually required of Marine Corps enlisted personnel serving with NROTC units. On the basis of the findings, a determination will be made as to how personnel should be selected and trained for such duty.

2. In connection with this study, it is requested that the enlisted Marine in your Unit be directed to prepare a description of his duties in accordance with enclosure (1) and complete the Personal History Questionnaire which is enclosure (2). Attention is invited to the fact that the completed job description should be reviewed by the Marine Officer Instructor and approved by the Professor of Naval Science.

3. It is further requested that the Professor of Naval Science accomplish the Rating Form, enclosure (3), without the knowledge of the enlisted Marine concerned.

4. A self-addressed envelope is enclosed. If at all practicable, it is desired that the data requested in enclosures (1), (2), and (3), be completed and mailed by 17 December 1949.

5. All information collected in connection with this study will be destroyed as soon as the data has been compiled and statistical analysis completed. The completed thesis will not contain data on any specific NROTC unit or the name of any individual in the Program.

6. Your cooperation in this matter will be greatly appreciated.

L. F. SHODDY, Jr.

1. Introduction

The purpose of this report is to

investigate the effect of the

temperature on the rate of

the reaction. The results are

presented in the following table. It is seen that the rate of reaction increases with increasing temperature. This is in agreement with the Arrhenius equation, which states that the rate of reaction increases exponentially with increasing temperature.

The data were obtained from a series of experiments in which the temperature was varied from 20°C to 40°C. The rate of reaction was measured by the volume of gas evolved per unit time. The results are shown in the table below.

It is seen that the rate of reaction increases with increasing temperature. This is in agreement with the Arrhenius equation, which states that the rate of reaction increases exponentially with increasing temperature.

The data were obtained from a series of experiments in which the temperature was varied from 20°C to 40°C. The rate of reaction was measured by the volume of gas evolved per unit time. The results are shown in the table below.

It is seen that the rate of reaction increases with increasing temperature. This is in agreement with the Arrhenius equation, which states that the rate of reaction increases exponentially with increasing temperature.

The data were obtained from a series of experiments in which the temperature was varied from 20°C to 40°C. The rate of reaction was measured by the volume of gas evolved per unit time. The results are shown in the table below.

The data were obtained from a series of experiments in which the temperature was varied from 20°C to 40°C. The rate of reaction was measured by the volume of gas evolved per unit time. The results are shown in the table below.

APPENDIX C (CONT.)

PREPARATION OF JOB DESCRIPTION

BY MARINE CORPS ENLISTED INSTRUCTOR

You are being asked to prepare a description of your duties because an analysis is to be made of the duties required of Marine Corps enlisted personnel serving with MRC units.

It is important that an accurate job description be obtained. You are requested to WRITE SIMPLY, STICK TO FACTS. Do not worry about grammar, punctuation or style. The only thing that counts is that you be understood when you tell what you do.

The list of questions which follows on the next page is to help you make sure that you include everything connected with your duties. You are requested to answer the questions in the order they are presented and to number your answers accordingly. Please add any information you feel will help others understand what you do.

The description may be written in long hand or typewritten but should be on standard size Navy stationery. (8 x 10 $\frac{1}{2}$ ")

When completed, the job description should be reviewed by the Marine Officer Instructor who is requested to make any necessary additions or corrections in a separate statement.

The job description, with the Marine Officer Instructors' comments attached, should be submitted to the Professor of Naval Science for approval.

Enclosure (1)

APPENDIX C (CONT.)

QUESTIONS TO BE ANSWERED BY MARINE CORPS ELISTED

INSTRUCTOR IN PREPARING JOB DESCRIPTION

1. What are your usual duties? (Describe each duty briefly; give names of any courses in which you instruct.)
2. What other duties do you perform that are not a usual part of your duties? (Describe each briefly.)
3. What do you consider are your major responsibilities?
4. What are the things most important and necessary for you to know in performing your duties?
5. For what materials or equipment are you responsible?
6. If you are assigned duties by officers other than the Marine Officer Instructor give examples of such duties.
7. How much opportunity is left you to use your own judgement in your work? (For example, are your orders detailed or are they general and permit you to decide how to get the task done?) Give an example.
8. What reference materials do you find most helpful in performing your duties?

FEEL FREE TO ADD ANYTHING YOU THINK
WILL CONTRIBUTE TO AN UNDERSTANDING
OF YOUR DUTIES AND ANY PROBLEMS
CONNECTED WITH YOUR DUTIES.

Enclosure (1)

THE HISTORY OF THE

REIGN OF KING CHARLES THE FIRST

BY JOHN BURNET

1. The first thing that I should mention is that the king was a very good man, and he was very kind to his people.

2. He was a very good man, and he was very kind to his people.

3. He was a very good man, and he was very kind to his people.

4. He was a very good man, and he was very kind to his people.

5. He was a very good man, and he was very kind to his people.

6. He was a very good man, and he was very kind to his people.

7. He was a very good man, and he was very kind to his people.

8. He was a very good man, and he was very kind to his people.

THE HISTORY OF THE
REIGN OF KING CHARLES THE FIRST
BY JOHN BURNET

APPENDIX C (CONT.)

PERSONAL HISTORY QUESTIONNAIRE
TO BE COMPLETED BY MARINE CORPS ENLISTED
INSTRUCTOR

(Additional Sheets should be used where necessary)

Date _____

Name _____ Rank _____ MOS _____

Age _____. Date reported to NROTC unit _____

Length of service in Marine Corps _____ (years).

Length of service in present rank _____ (years and months).

Were you graduated from a high school? _____ (yes or no).

If you attended a college or university, circle the number of full school years you completed: 1 2 3 4 More than 4.

List the service schools of over two weeks duration which you have attended with dates of attendance:

Have you had previous experience as an instructor in an organized school _____ (yes or no). If so, indicate name of the school and length of such experience:

What previous duty was most useful as preparation for your present duties?

In your opinion, was the Instructors Orientation Course adequate special training for NROTC duty? _____ (yes or no). If not, what additional training would you recommend?

Do you participate in any school activities outside of the NROTC program (such as assisting in the intra-mural program, association with an athletic team, coaching additional rifle teams, etc.) _____ (yes or no). If so, list them:

Signature _____
College or
Univ. _____

Enclosure (2)

APPENDIX C (CONT.)

**RATING OF MARINE CORPS ENLISTED INSTRUCTOR
(TO BE COMPLETED BY THE PROFESSOR OF NAVAL SCIENCE)**

Date _____

Name of Instructor _____

Rank _____

(Please check one characteristic under each trait.)

1. Military Bearing and Neatness:

- _____ Slovenly, not neat.
 _____ Poor posture, needs neatness reminders.
 _____ Clean, orderly.
 _____ Very neat, well groomed.
 _____ Prepossessing, attracts attention.

2. Group Adaptability:

- _____ Congenial, is sought after.
 _____ Generally accepted by the group.
 _____ Colorless, does not attract.
 _____ Repelling, avoided by others.

3. Work Attitude:

- _____ Goes about his work half-heartedly.
 _____ Sometimes appears indifferent.
 _____ Shows interest ordinarily expected.
 _____ More than average interest in his work.
 _____ Eagerly enthusiastic about his work.

4. Knowledge of his Work:

- _____ Has mastery of all phases of his work.
 _____ Unusually well informed about his work.
 _____ Has adequate knowledge of his work.
 _____ Has not gained adequate comprehension of his work.

5. Performance of Instructional Duties:

- _____ Not sufficient ability for instructing NROTC students.
 _____ Below average for an enlisted instructor.
 _____ Sufficient instructional ability for this duty.
 _____ Above average for an enlisted instructor.
 _____ Has outstanding instructional ability.

6. Overall Job Performance:

- _____ Outstanding.
 _____ Excellent.
 _____ Average.
 _____ Fair.
 _____ Poor.

Comments: _____

Signed _____

Professor of Naval Science

College or Univ. _____

Enclosure (3)

APPENDIX D

DESCRIPTIONS OF MATERIALS AND PUBLICATIONS
REPORTED AS MOST USEFUL TO ENLISTED
MARINES SERVING WITH MROTC UNITS.

1. Field Manuals - a number of publications of the United States Army which deal with a great variety of subjects. It is assumed that the Field Manuals used by the Marine Instructors concern infantry weapons and close order drill, map reading, and terrain appreciation.
2. Marine Corps Schools publications - a number of pamphlets and booklets dealing with infantry weapons, tactics, map reading, amphibious operations, and other subjects of importance to Marines. Published and promulgated by the Marine Corps Schools, Quantico, Virginia.
3. Naval Ordnance publications - booklets and manuals published by the Bureau of Ordnance, Department of the Navy, covering such subjects as Naval gunnery, ammunition, firing procedures, and related ordnance subjects.
4. United States Navy Regulations - regulations for the government of all persons in the Naval Establishment. Published and promulgated by the Secretary of the Navy.
5. Technical Manuals - booklets prepared and published by the Department of the Army covering technical subjects such as detailed instructions on rifle repair, vehicle maintenance, and many, many other subjects.
6. MROTC text books - the Enlisted Marine Instructors are concerned with the text books dealing with the history of war, principles and techniques of amphibious operations, and Marine Corps history.
7. Marine Corps Manual - a Marine Corps publication in which the Commandant of the Marine Corps, by authority of the Secretary of the Navy, prescribes detailed rules and directions for the administration and instruction of personnel of the Marine Corps, based upon, and supplementary to, laws and regulations of higher authority.
8. Marine Corps Gazette - a professional magazine for United States Marines. The official organ of the Marine Corps Association. Contains articles of general interest to and by Marines.
9. Instructors Guide - a book for MROTC Instructors, published by the Bureau of Personnel. Contains lesson plans, training aid suggestions, additional reference materials, and other material of assistance to officer and enlisted instructors.
10. Guidebook for Marines - a semi-official book prepared by the Leatherneck Association. Contains information on the history and traditions of the Marine Corps, discipline and courtesy, interior guard duty and other basic military skills--oriented for Marines.

THE REPORT

Summary of the Report of the Committee on the State of the Nation and the Future of the Country

The Committee has the honor to present to you the following report on the state of the nation and the future of the country, as requested by the House of Representatives on the 15th of January, 1890.

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The Committee has the honor to present to you the following report on the state of the nation and the future of the country, as requested by the House of Representatives on the 15th of January, 1890.

APPENDIX D (CONT.)

11. National Rifle Association Small Bore Rifle Rules - a pamphlet containing the official rules for conducting small bore rifle matches and tournaments. NROTC rifle matches are conducted under these rules.

12. National Rifle Association Pistol Rules - a pamphlet containing official rules for the conduct of pistol and revolver matches and tournaments. NROTC pistol matches are conducted under these rules.

13. National Rifle Association Instructors Manual - a booklet dealing with the history of firearms development, rifles and ammunition, and a recommended instruction schedule for beginning marksmen.

14. Handbook on Small Bore Rifle Shooting - a book written for the beginner in rifle shooting. Provides principles on which good marksmanship is based and data on building and operating small bore ranges.

15. Landing Force Manual, U. S. Navy, 1938 - contains information on close order drill, combat principles for small units, and landing force tactics and techniques. The material is based on Field Manuals and Training Regulations of the United States Army.

16. Marine Corps Letters of Instruction - letters published to inform Marines of changes in regulations, orders, and matters of general interest. These have now been superseded by Marine Corps Memoranda and Information Bulletins.

17. The Leatherneck - a monthly magazine published by the Leatherneck Association. Contains articles about Marines and the Marine Corps and matters of general interest to Marines.

18. Bureau of Personnel Manual - a manual describing the organization of the Bureau of Personnel and the administrative procedures to be followed in dealing with that Bureau.

19. Data from Instructors Training Course - mimeographed material used for instructional purposes at the Navy schools. Material deals primarily with instruction techniques and lesson planning.

20. Naval Courts and Boards - a book published by the Department of the Navy for the government of all persons attached to the Naval service. Contains Naval Law and detailed instructions on procedures under that Law.

21. Infantry Journal - a monthly magazine published by the Infantry Association. Contains articles of interest to the infantry soldier with most contributions by United States Army personnel.

THE HISTORY OF THE

1. The first part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

2. The second part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

3. The third part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

4. The fourth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

5. The fifth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

6. The sixth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

7. The seventh part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

8. The eighth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

9. The ninth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

10. The tenth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

11. The eleventh part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

12. The twelfth part of the history is the history of the world, from the beginning of the world to the present time. It is divided into three parts: the history of the world, the history of the world, and the history of the world.

APPENDIX E

BRIEF DESCRIPTIONS OF DUTIES CONSIDERED MOST USEFUL AS
BACKGROUND FOR NROTC DUTY BY FIFTY ONE ENLISTED
MARINES SERVING WITH NROTC UNITS

1. Fleet Marine Force - the combat force of the Marine Corps. Duty in the Fleet Marine Force provides a review of basic training and advanced training in land warfare and amphibious operations.
2. Recruit Depot Drill Instructor - instructing Marine recruits in basic military skills of close order drill, personal hygiene, marksmanship, military discipline and courtesy, and other military subjects.
3. First Sergeant's billet - the First Sergeant is the senior non-commissioned officer in a Marine company and performs administrative duties, assists in training company personnel including lower ranking noncommissioned officers, and other duties as may be prescribed by the unit commander. These duties will vary with the unit and local policies.
4. Sea Duty - duty with one of the Fleets of the United States Navy aboard a capital ship. This duty provides valuable experience in guard duty, close order drill, ceremonies, and weapons.
5. Marine Corps Schools - this duty may be with demonstration units at the schools or on the Staff of the Commandant, Marine Corps Schools. The kinds of duty possible under this heading are many and were not specified on the completed questionnaires.
6. Knowledge of all previous duty is utilized - this general comment cannot be further explained without extensive description.
7. Rifle Range Coach - this duty would provide intensive experience in instructing in rifle marksmanship and familiarization with other infantry weapons.
8. Sergeant Major's billet - a Sergeant Major is the senior non-commissioned officer in a unit the size of a battalion or larger. He usually performs administrative duties and such other duties as may be assigned him.
9. Sea School - an intensive course of instruction given to Marines prior to their assignment to sea duty. Emphasizes ship-board terminology and organization, close order drill, guard duty, and other subjects most useful in the performance of duties at sea.
10. Instructors Training Course - a course in instruction techniques, NROTC orientation, and other subjects important to Marines to be assigned to NROTC duty.

1. Introduction

The purpose of this report is to provide a comprehensive overview of the current state of research in the field of artificial intelligence, with a particular focus on the development of intelligent systems capable of learning from data and making decisions based on that information.

The report is organized into several sections, each of which addresses a specific aspect of the field. The first section discusses the historical context of artificial intelligence, while the subsequent sections focus on the various subfields and the challenges that remain to be solved.

The second section provides a detailed overview of the current state of research in the field of artificial intelligence, with a particular focus on the development of intelligent systems capable of learning from data and making decisions based on that information.

The third section discusses the various subfields of artificial intelligence, including machine learning, natural language processing, computer vision, and robotics. Each of these subfields is discussed in detail, with a focus on the current state of research and the challenges that remain to be solved.

The fourth section discusses the challenges that remain to be solved in the field of artificial intelligence. These challenges include the need for more powerful computational resources, the need for more sophisticated algorithms, and the need for more effective ways of evaluating the performance of intelligent systems.

The fifth section discusses the potential applications of artificial intelligence in a variety of fields, including medicine, finance, and transportation. Each of these applications is discussed in detail, with a focus on the current state of research and the challenges that remain to be solved.

The sixth section discusses the ethical implications of artificial intelligence, including the potential for job displacement, the potential for bias and discrimination, and the potential for misuse of the technology.

The seventh section discusses the future of artificial intelligence, including the potential for the development of more powerful and more sophisticated intelligent systems, and the potential for the development of new applications of the technology.

The eighth section discusses the conclusion of the report, which summarizes the key findings and provides a final overview of the current state of research in the field of artificial intelligence.

The ninth section discusses the bibliography, which lists the sources used in the report. The tenth section discusses the appendix, which contains additional information related to the report.

The final section of the report is the conclusion, which summarizes the key findings and provides a final overview of the current state of research in the field of artificial intelligence.

APPENDIX E (CONT.)

11. No other duty provides background for NROTC duty - no description is required in this instance.

12. Small arms instructor - instructing in rifle, pistol, machine gun, and other small arms.

13. Assistant Professor of Military Science and Tactics, private military academy - the duties performed in such a job are not known but it is believed that such a position would offer valuable experience in instruction techniques and in basic military subjects.

14. Assistant Regimental S-2 - this duty would provide experience in map reading and terrain appreciation.

15. Motor transport - duty in the motor transport field could vary widely but it is assumed that the duty would be most useful to those who are assigned responsibilities of driving and maintaining NROTC vehicles.

16. Parachute school - an intensive course in advanced infantry techniques as well as airborne procedures and parachute skills. The school included intensive instruction in infantry weapons.

17. Personnel Administration School, Parris Island - the school instructed Marines in the latest personnel procedures and administrative regulations.

18. S-3 Section, Marine Barracks, Camp Pendleton - the exact nature of this duty is not known but it is assumed that the duty provided experience in training others in basic and advanced military subjects.

19. Staff, Commander in Chief, U. S. Pacific Fleet - such duty may vary greatly in its requirements.

20. Range Officer - would provide experience in operating a rifle and pistol range.

21. Troop Leaders School - training in leadership techniques and advanced military subjects and methods of instructing others.

22. Troop Training Unit - the duty here may vary widely. The Troop Training Units train Marine and Army units in amphibious operations.

(1900) 1000000

1. The first part of the book is devoted to a general survey of the history of the world, from the beginning of time to the present day.

2. The second part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

3. The third part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

4. The fourth part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

5. The fifth part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

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9. The ninth part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

10. The tenth part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

11. The eleventh part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

12. The twelfth part of the book is devoted to a detailed account of the history of the world, from the beginning of time to the present day.

APPENDIX F

INFANTRY CHIEF
MOS 0319
1st Pay Grade

I. MOS Description

As senior infantry noncommissioned officer, assists in the supervision of the training, routine administration, and tactical employment of a rifle company.

Supervises preparation of personnel, weapons, and equipment for movement and combat. Enforces march discipline. Supervises the establishment of company command post, and assists in its operation. Assists in leading a rifle company in action, and on maneuvers and tactical problems. Assists in coordinating company's fire and movement with the fire and movement of other units. Inspects and determines condition of company correspondence, reports, schedules, and rosters. Organizes and supervises the necessary housekeeping functions in the company. Conducts, or supervises subordinates conducting training in infantry subjects.

II. Qualification Requirements

A. For MOS 0319, 1st Pay Grade:

Be a qualified MOS 0316, 2d Pay Grade.*

Be able under general supervision, to make plans for, coordinate, and direct the work and training of rifle company personnel.

Be able to perform the duties of platoon commander in action and on maneuvers.

Know infantry tactics as applicable to the rifle company, and be able to apply such tactics.

Know standing operating procedures of battalion to which attached.

*For qualifications of MOS 0316, 2d Pay Grade see Appendix G.

APPENDIX G

QUALIFICATION REQUIREMENTS FOR MOS 0316
3d and 2d Pay Grades

A. For MOS 0316, 3d Pay Grade:

- Be a qualified MOS 0311, 4th Pay Grade.
- Be able to train the members of a rifle platoon.
- Be able to detail strip, reassemble, and make authorized minor repairs to weapons organic to the rifle platoon.
- Know employment, capabilities, and limitations of weapons and equipment organic to the rifle platoon.
- Know infantry tactics as applicable to the rifle platoon, and be able to apply such tactics.
- Be able to read topographic and photo maps.
- Be able to prepare topographic overlays and sketches.
- Know the means of communication commonly used by a rifle company.
- Be able to supervise the location, construction, and camouflaging of hasty and deliberate positions and ground obstacles for the rifle platoon.
- Be able to supervise care and cleaning of weapons and equipment organic to the rifle platoon.
- Have sufficient knowledge of the employment, capabilities, and limitations of battalion support weapons to be able to requisition, observe, and correct fire of such weapons.
- Be able to requisition and supervise distribution of ammunition, rations, and other supplies for a rifle platoon.

B. For MOS 0306, 2d Pay Grade:

- Be a qualified MOS 0316, 3d Pay Grade.
- Be able to supervise the training of rifle platoons.
- Know employment, capabilities, and limitations of weapons and equipment organic to the rifle company.
- Know the means of communication commonly used by an infantry battalion.
- Be able to supervise the location, construction, and camouflaging of hasty and deliberate positions and ground obstacles for the rifle company.
- Have sufficient knowledge of the employment, capabilities, and limitations of regimental support weapons to be able to requisition, observe, and correct fire of such weapons.
- Be able to requisition and supervise distribution of ammunition, rations, and other supplies for a rifle company.
- Know organization of the division.

APPENDIX H

THE ARMY GENERAL CLASSIFICATION TEST

The Army General Classification Test is used by the United States Marine Corps in the initial classification and assignment of recruits. The test is administered as soon as practicable after their induction into the Marine Corps.

The Army General Classification Test is a battery of tests designed to yield measures of four different aspects of mental ability and to provide at the same time an overall measure of the individual's capacities.

The tests which make up the battery are as follows:

- 1 - Reading and Vocabulary Test
- 2 - Arithmetic Computation Test
- 3 - Arithmetic Reasoning Test
- 4 - Pattern Analysis Test

A score is computed for each of the tests in the battery and a total score is also computed.

Further information on this Test can be found in a War Department Manual titled AGCT Manual - AMCT 3M, 1946.

APPENDIX I

ARMY GENERAL CLASSIFICATION TEST SCORES OF FIFTY ONE
ENLISTED MARINES CURRENTLY SERVING WITH HEROIC UNITS

Score	Number	::	Score	Number
87	1	::	120	2
88	1	::	122	1
95	1	::	123	3
97	1	::	124	2
98	2	::	125	2
99	1	::	127	1
106	2	::	128	2
109	2	::	129	1
111	1	::	130	1
112	2	::	131	2
113	2	::	133	2
114	2	::	135	1
115	1	::	136	1
116	1	::	140	1
117	3	::	143	2
118	2	::	150	1
119	1	::		
			Total	51

Median Score.....119
Mean Score.....119
Standard Deviation.... 13.8

APPENDIX J

PERSONAL DATA ON NROTC ENLISTED MARINE INSTRUCTORS
WITH LOWEST AND HIGHEST TOTAL RATING SCORES

	Total rating score	AOCT score	Years of MC service	Age	Years of formal education	No. of extra- curricula activities
Lowest Group	14	112	11	33	12	None
	14	106	12	33	12	None
	16	109	8	35	16	1
	16	123	15	35	12	None
	16	138	15	34	12	2
	17	98	16	40	12	None
	18	88	15	36	10	None
	19	115	10	29	12	None
	19	128	11	29	12	None
Highest Group	27	112	12	32	12	None
	27	114	13	32	12	None
	27	117	14	34	10	None
	27	118	9	29	12	2
	27	135	18	39	14	2
	28	99	17	33	10	1
	28	120	12	35	12	None
	28	123	10	28	13	3
	28	150	15	35	12	1

APPENDIX K

FIRST WEEK

U.S. NAVAL SCHOOL, INSTRUCTORS
 NROTC ENLISTED INSTRUCTORS COURSE
 NAVAL STATION, NORFOLK, VIRGINIA

JUNE, 1949

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0830 to 0920	Introduction to Course. Place of Training in Navy. Importance of Instructors Job	Talks on "Factors" by Students	Review & Test on Mechanics and Principles of Learning	Planning Instruction Introduction to Lesson Plan. (Film SN-98)	Planning Instruction The Presentation Phase	Inspection
0930 to 1020	Overview of Objectives, Content, Personnel & Physical set-up NROTC	Review & Test on Factors of Learning	Planning Instruction Instr. Analysis Complete billet. Use of NavPers 18068	Planning Instruction Titles & Objectives	Planning Instruction Application & Summary Phases	Examination on first weeks material
1030 to 1130	Factors affecting Learning (Film SN-49)	Mechanics & Principles of Teaching (Film SN-48)	Instr. Analysis Job Breakdowns	Planning Instruction The Preparation Phase of Lesson Planning	Planning Instruction Test & Assignment Phases	Review of Examination
1300 to 1350	Factors Affecting Learning	Characteristics of the Instructor. (Film MN-100)	Preparation Period Students prepare own job Breakdowns	Planning Instruction The Introduction Phase. Motivation & Interest. Prepare 5 min. introductions	Questioning Techniques	
1400 to 1450	Assignment & Preparation period. 5 Min. talk on "Factors".	Blackboard Techniques. (Film SN-101)	Instr. Analysis Discussion & Review	Practice Teaching on Introductions	Planning Instruction Review of Complete Lesson Plan	
1500 to 1600	Talks on "Factors" by Students	How to Study	Test on Instructional Analysis	Practice Teaching on Introductions	Field Day	

APPENDIX K (CONT.)

SECOND WEEK

U.S. NAVAL SCHOOL, INSTRUCTORS
NROTC ENLISTED INSTRUCTORS COURSE

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0830 to 0920	Training Aids Functions, Types & Availability	Methods of Instruc- tion. 1. The Lecture. Tips on Speaking.	BuPers. Publications Curriculum, Instruc- tors Guide, Labora- tory Manual, Cruise Manuals	Instruction Sheets Definition Types Value and Use	Preparation Period Constructing a Lesson Plan for Formal Lecture	Inspection
0930 to 1020	Training Aids Proper Utilization (Film MN 3731)	Methods of Instruc- tion. 2. Directed Discussion	Instructional and other duties at an NROTC Unit.	Instruction Sheets Information Sheets	Practice Teaching (Formal Lecture)	Examination on second weeks material
1030 to 1130	Designing Training Aids	Methods of Instruc- tion. 3. The Demonstration. (Film MN 188)	Review Film (Film MN 6605)	Preparation Period Writing Information Sheets	Practice Teaching (Formal Lecture)	Review of Examination
1300 to 1350	Preparation Period in Designing Training Aids	Demonstration Techniques	Scheduling Techniques	Instruction Sheets Assignment Sheets	Practice Teaching (Formal Lecture)	
1400 to 1450	Presentation of Students Training Aids	Methods of Instruction Test & Review	Evaluation of Teaching Techniques Use of check list	Instruction Sheets The Job Sheet	Practice Teaching (Formal Lecture)	
1500 to 1600	Test & Discussion on Training Aids	Overview of Methods of Instruction. (Film MA 1479)	Preparation Period Writing Teacher Evaluation Sheets	Test and Review of Scheduling and Evaluation Techni- ques and Instruc- tion Sheets.	Field Day	

APPENDIX K (CONT.)

THIRD WEEK

U.S. NAVAL SCHOOL, INSTRUCTORS
NROTC ENLISTED INSTRUCTORS COURSE

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0830 to 0920	Holiday	Selection and Types of NROTC Candidates	Talk by PNS on Public Relations at an NROTC Unit. Duties of Instructor	Navy Driver's Examination	Practice Teaching and Evaluation on The Demonstration	Inspection
0930 to 1020	Holiday	University Organi- zation and its relation to the NROTC	Talk on How Chiefs can develop officer- like attitudes.	Navy Driver's Examination	Practice Teaching and Evaluation on The Demonstration	Examination on third weeks material
1030 to 1130	Holiday	Testing Techniques Types of Tests 1. Essay Type	Academic Organiza- tion and General Regulations for.	Navy Driver's Examination	Practice Teaching and Evaluation on The Demonstration	Review of Examination
1300 to 1350	Holiday	Testing Techniques 2. Objective Type	Shop and Laboratory Management	Navy Driver's Examination	Practice Teaching and Evaluation on the Demonstration	
1400 to 1450	Holiday	Testing Techniques The Performance Test	Advantages of NROTC Assignment.	Navy Driver's Examination	Practice Teaching and Evaluation on The Demonstration	
1500 to 1600	Holiday	Testing Techniques Scoring and Interpretation of Tests.	In-Service Training at an NROTC Unit.	Navy Driver's Examination	Field Day	

FOURTH WEEK

APPENDIX K (CONT.)

U.S. NAVAL SCHOOL, INSTRUCTORS
NROTC ENLISTED INSTRUCTORS COURSE

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0830 to 0920	Review of Teacher Evaluation Field Trip NavScol, Padarmen	Review of Evaluation Field Trip NavScol, Air Conditioning & Refrigeration	Review of Evaluation Field Trip Fleet Training Center	Practice Teaching and Evaluation on The Demonstration	Practice Teaching and Evaluation on The Demonstration	Inspection
0930 to 1020				Practice Teaching and Evaluation on The Demonstration	Practice Teaching and Evaluation on The Demonstration	Examination on entire
1030 to 1130	Discussion	Discussion	Discussion	Practice Teaching and Evaluation on The Demonstration	Practice Teaching and Evaluation on The Demonstration	Discussion and Critique
1300 to 1350	Practice in Projector Operation	Practice in Projector Operation	Practice in Projector Operation	Practice Teaching and Evaluation on The Demonstration	Practice Teaching and Evaluation on The Demonstration	
1400 to 1450	Practice in Projector Operation	Practice in Projector Operation	Practice in Projector Operation	Practice Teaching and Evaluation on The Demonstration	Summary and Review	
1500 to 1600	Practice in Projector Operation	Practice in Projector Operation	Practice in Projector Operation	Practice Teaching and Evaluation on The Demonstration		

APPENDIX L

U.S. NAVAL TRAINING CENTER, SAN DIEGO, CALIFORNIA
Week First Course "B"

Per.	Monday	Tuesday	Wednesday	Thursday	Friday
1	Indoctrination (with course "A")	Factors Affecting Learning II Hindrances & Remedies	Factors Affecting Learning V Test and Review	Instructional Analysis III	Lesson Planning VI Test
2	Indoctrination (with course "A")	Factors Affecting Learning III Hindrances & Remedies	Instructional Analy- sis I Overview of Analysis Concept. Intro. to Billet Analysis.	Instructional Analy- sis VII Review	Lesson Planning VII Review
3	Overview of Course (with course "A")	Factors Affecting Learning IV Promotional Factors	Instructional Analy- sis II Billet Analysis. Use of NavPers 18068.	Lesson Planning I Overview of Lesson Planning, Preparation Phase	Methods of Instruction I Overview-Instructional Steps
4	Overview of Course (with course "A")	Preparation Period I 5 Minute Talks Factors Affecting Learning.	Instructional Analy- sis III Billet Analysis. Use of NavPers 18068.	Lesson Planning II Introduction Phase. Assign Introduction Speeches.	Methods of Instruction II Illustrated Lecture.
5	How to Study	Practice Teaching I Factors Affecting Learning Talks. Use Tape Recorder.	Instructional Analy- sis IV Job Analysis.	Lesson Planning III Presentation & Application Phases.	Methods of Instruction III Illustrated Lecture.
6	Principles of Public Speaking	Practice Teaching II Factors Affecting Learning Talks. Use Tape Recorder.	Instructional Analy- sis V Job Analysis and Use of Analysis Sheet	Lesson Planning IV Summary & Testing Phases	Methods of Instruction IV Demonstration-Prepara- tion for, Techniques of
7	Factors Affecting Learning I The Meaning of Sense	Practice Teaching III Factors Affecting Learning Talks. Play- back on Tape Recorder	Planning Instruction I: Overview of Prac- tice Teaching Assign- ment. Make Initial 40 Min. Assignment.	Lesson Planning V Assignment Phases	Methods of Instruction V Demonstration by Instructor.

APPENDIX L (CONT.)

Week		Second	Course "3"		Class Schedule	
Per.	Monday	Tuesday	Wednesday	Thursday	Friday	
1	Methods of Instruction VI Group Performance	Methods of Instruction X Test	MR. LANG	MR. LANG	MR. LANG	
2	Methods of Instruction VII Coach & Pupil	Methods of Instruction XI Review	MR. LANG	MR. LANG	MR. LANG	
3	Methods of Instruction VIII Directed Discussion	Training Aids I Purposes, Types & Uses.	MR. LANG (Mr. Lang is from the training Division of the Bureau of Naval Personnel and during the periods allotted to him presents information on duties performed by personnel assigned to NROTC units)	MR. LANG	MR. LANG	
4	Methods of Instruction IX Film MR-108 "Giving a shop demonstration."	Training Aids II Blackboard Technique	Training Aids VI Introduction to Self Designed Training Aids	Training Aids X Test	MR. LANG or Film MA1479 "Military Training"	
5	Planning Instruction III Discuss & Make final decision on Practice Teaching Topics.	Training Aids III Film Utilization	Training Aids VII Design Training Aids & Projector Operation	Practice Teaching VI Design Training Aid Talks	Teacher Evaluation I Evaluation of Teaching Techniques	
6	Planning Instruction III Demonstration. Presentation by members of Grading Class	Practice Teaching IV Introduction Talks	Training Aids VIII Design Training Aids & Projector Operation	Practice Teaching VII Design Training Aid Talks	Teacher Evaluation II Self Evaluation	
7	Planning Instruction III Demonstration by members of Grading Class.	Practice Teaching V Introduction Talks	Training Aids IX Design Training Aids & Projector Operation	Practice Teaching VII Design Training Aid Talks.	Overview and Discussion of Practice Teaching.	

APPENDIX L (CONT.)

Class Schedule

Course "B"

Week Third

Per.	Monday	Tuesday	Wednesday	Thursday	Friday
1	Testing Techniques I Introduction to testing. Key Test.	Testing Technique V Single answer test Completion Test	Testing Techniques IX Converting scores into grades Proportion Method Testing Techniques X Translation Graph method Testing Techniques XI Evaluation of test scores	Testing Technique XIII Test	Instruction Sheets III Job Sheet
2	Testing Techniques II Objective tests True-false test	Testing Techniques VI Identification test.	Testing Techniques X Translation Graph method Testing Techniques XI Evaluation of test scores	Testing Techniques XIV Review	Instruction Sheets IV Information Sheet
3	Testing Techniques III Multiple Choice Test	Testing Techniques VII Performance Test VII Oral Questions	Testing Techniques XI Evaluation of test scores Preparation of test items by students.	Instruction Sheets I Overview	Instruction Sheets V Assignment Sheet
4	Testing Techniques IV Matching Test	Testing Techniques VIII Oral Questions	Testing Techniques XII Preparation of test items by students.	Instruction Sheets II Preview & Analysis of Sample Instruction Sheets.	Instruction Sheets VI Test & Review
5	Practice Teaching IX Demonstration Lesson Blackboard Technique	Practice Teaching XII Demonstration Lesson Blackboard Technique	Practice Teaching XV 40 Minute Demonstration Lesson	Practice Teaching XVIII 40 Minute Demonstration Lesson	Practice Teaching XII 40 Minute Demonstration Lesson
6	Practice Teaching X Demonstration Lesson Blackboard Technique	Practice Teaching XIII Demonstration Lesson Blackboard Technique	Practice Teaching XVI 40 Minute Demonstration Lesson	Practice Teaching XIX 40 Minute Demonstration Lesson	Practice Teaching XIII 40 Minute Demonstration Lesson
7	Practice Teaching XI Demonstration Lesson Blackboard Technique	Practice Teaching XIV Demonstration Lesson Blackboard Technique	Practice Teaching XVII 40 Minute Demonstration Lesson	Practice Teaching XX 40 Minute Demonstration Lesson	Practice Teaching XXII 40 Minute Demonstration Lesson

APPENDIX L (CONT.)

Per.	Monday	Tuesday	Wednesday	Thursday	Friday
Week	Fourth	Course	"B"		
1	Practice Teaching XXIV 40 Minute Demonstration Lesson	Practice Teaching XXIX 40 Minute Demonstration Lesson	Practice Teaching XXXVII Training Bulletin Speeches	Final Examination I	Projector Operation
2	Practice Teaching XXV 40 Minute Demonstration Lesson	Practice Teaching XXXI 40 Minute Demonstration Lesson	Practice Teaching XXXVIII Training Bulletin Speeches	Final Examination II	Projector Operation
3	Practice Teaching XXVI 40 Minute Demonstration Lesson	Practice Teaching XXXII 40 Minute Demonstration Lesson	Practice Teaching XXXIX Extemporaneous Speaking	Field Trip I Preparation of Class	Projector Operation
4	Practice Teaching XXVII 40 Minute Demonstration Lesson	Practice Teaching XXXIII 40 Minute Demonstration Lesson	Practice Teaching XLII Extemporaneous Speaking	Field Trip II Classroom Visitation	Graduation
5	Library Period I Effective use of the library	Practice Teaching XXIV 40 Minute Demonstration Lesson	Practice Teaching XLIII Scheduling Techniques	Final Examination III Discussion of Results	
6	Practice Teaching XXIX 40 Minute Demonstration Lesson	Practice Teaching XXXIV 40 Minute Demonstration Lesson	Guidance Seminar Psychology of Teaching	Field Trip III Discussion of Classroom Visitation	
7	Library Period II The Training Bulletin Preparation of Short Speeches.	Practice Teaching XXVI 40 Minute Demonstration Lesson	Guidance Seminar The Instructor As a Counselor	Final Examination OF COURSE	HEART & CATHETER

APPENDIX M

ADDITIONAL TRAINING RECOMMENDED FOR AND OTHER
COMMENTS ON THE INSTRUCTORS TRAINING
COURSES BY FIFTY ONE ENLISTED
MARINE INSTRUCTORS*

1. "A review and practice of close order drill would be helpful. Otherwise the course was excellent. Much of the detailed instruction could be dropped and more practicable instruction in its place".
2. "Course should be of three weeks duration".
3. "Recommend field work and practical experience in the various duties found at an MROTC unit. Should include drill, weapons, administration, marksmanship, and low projection work".
4. "Recommend course on all weapons, more work on training aids".
5. "Most of the things one has to know, teach, or perform are not taught in one school. Three-fourths of that school is a waste of time".
6. "Recommend less emphasis on instructing and more on use of training aids".
7. "The school was excellent as a whole but they need more training aids for use of Marine students in giving demonstration lectures".
8. "All Marines should be given a short indoctrination course in infantry weapons, map reading, terrain appreciation, and naval justice".
9. "The course is useful but not to any great extent. So far I've applied very little of knowledge learned in instructors course".
10. "Course could have been of longer duration".
11. "We spent approximately one day on training aids. I think that a much more thorough study of training aids as related to MROTC course would be beneficial".
12. "Should be more training on the operation of movie projectors, close order drill, and small arms instruction".
13. "In the school no one actually knew what the duties of a Marine Corps Instructor would be".

APPENDIX M (CONT.)

14. "Recommend more emphasis on sketching, less on the theory of teaching and more actual work with training aids".
15. "Nothing could be added that would replace the first three or four months on the job which is necessary for orientation to this type of duty".
16. "Recommend a longer school period to allow more teaching practice; a clearer understanding of an enlisted man's duties".

*Quoted from the data furnished by the Enlisted Marine Instructors.

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